Bloomberg Businessweek

March 6, 2023

● An exodus of female execs 8
● France's #MeToo moment 27
● The end of the SPAC era 18



The US vs. The Fugee

How rapper Pras Michél got mixed up in a global financial scandal that could cost him his freedom 32

A Bloomberg Publication

VISIT…

LANZAROTE Caliente.com



KEEP LIVING THE SMALL BUSINESS DREAM.
S&S
SPARK & SONS ELECTRIC
Protect your small business from reality with over 30+ customizable coverage options and personalized discounts. Get a quote in as little as 6 minutes at ProgressiveCommercial.com
PROGRESSIVE® COMMERCIAL
Progressive Casualty Ins. Co. & affiliates. Coverages and discounts not available in all states or situations, for all vehicles or coverage selections.

Bloomberg Businessweek

March 6, 2023



◀ Michél's trial begins at the end of March. If convicted, the rapper could go to prison for decades

FEATURES

32 The Fugee and the Feds
Pras Michél is accused of major crimes for his role in a global financial scandal

42 A Hack That Got Everybody's Attention
Satellites are surprisingly vulnerable, as this Russian cyberattack revealed

48 The Cost of Energy Independence
A new road into rural Alaska is a boon, an environmental disaster—or both

PHOTOGRAPH BY MARC BAPTISTE FOR BLOOMBERG BUSINESSWEEK

■ IN BRIEF 4 Home prices ● Insulin costs ● Murdoch and Dominion
■ OPINION 6 Immigration reform is a work in progress. Give it time
■ AGENDA 6 The Oscars ● US unemployment ● Women's Day

■ REMARKS 8 Getting women into C-suites may be about to get harder

1 BUSINESS
10 In Hollywood, little studios are suddenly not so hot
11 Russian airlines are grounded? Think again
12 Macau picks up, but catching up to Vegas may take years

2 TECHNOLOGY
14 Microsoft's gutsy bet on subscription-based games
16 The FTC's Lina Khan isn't winning many corporate pals

3 FINANCE
18 Going public via SPAC: The bloom is off the rose
20 PayPal's CEO is leaving. His replacement is...?

4 ECONOMICS
22 ▼ US-China relations: The buck stops here



25 Supply chains are normalizing, but shipping costs aren't

+ SOLUTIONS / EQUALITY
27 At last, the #MeToo movement makes headway in France
29 With Japan lagging on LGBTQ rights, business steps up
31 How lots of nations that aren't the US get child care right

■ PURSUITS
55 To honor a malt master's 60-year run, a $145,000 Scotch
58 What a pretty orchid. And what a pretty pot it's in
60 Eating your way around a newly delicious Dubai...
62 ...and where to spend the night
63 The smartest Roomba ever: It dodges pet crap

■ LAST THING 64 Workers are finally grabbing a bigger piece of the pie

CORRECTION

The chart for "A New Arms Race" (Remarks, Feb. 27) linked some numbers representing defense spending as a share of GDP with the wrong nations. The correct figures are available at bloom.bg/3KSPybw. ● "The Cold War at Ben & Jerry's" (Features, Feb. 20) misspelled Union Carbide.

How to Contact *Bloomberg Businessweek*
EMAIL bwreader@bloomberg.net ● TWITTER @BW ● INSTAGRAM @businessweek ● FACEBOOK facebook.com/bloombergbusinessweek ● AD SALES 212 617-2900, 731 Lexington Ave. New York, NY 10022 ● SUBSCRIPTION HELP businessweekmag.com/service ● REPRINTS/PERMISSIONS 800 290-5460 x100 or businessweekreprints@theygsgroup.com

A Bloomberg Publication
Before it's here, it's on the Bloomberg Terminal. Learn more at bloomberg.com/company

■ COVER TRAIL

How the cover gets made

1

"This week's cover is about Pras Michél, the Fugees' third member."

"Ooh! Album dropping?"

"No, more like he got himself mixed up in the 1MDB financial scandal and he's about to go on trial with the US government."

"Yeesh, a lot has changed since I was jamming to *Fu-Gee-La* my senior year."

"I'm betting he wishes he was back in those days, too."

"Well, what if we ask the original photographer for *The Score* to photograph him?"

"Heck, yeah! And I've got the perfect headline: 'Ready or Not, One of the Fugees Can't Hide!'"

"Even my high school self would think that's lame."

"You're killing me softly with this feedback."



Cover: Photograph by Marc Baptiste for *Bloomberg Businessweek*

ECONOMICS: PHOTOGRAPH BY SCHAUN CHAMPION FOR BLOOMBERG BUSINESSWEEK

Google

We keep more Americans safe online than anyone else

For over 20 years, we've been protecting Americans from cybersecurity threats. From phishing protections to safeguarding the websites of news outlets and human rights organizations, we're building advanced technology that raises the bar for the entire industry and makes the whole internet safer for everyone.

Explore how Google is building tools to keep more people safe and secure at safety.google

Safer with Google

● War in Ukraine

▶ Ukraine signaled it may be forced to evacuate Bakhmut. Russia's prolonged siege of the city, which has seen incredibly high casualty rates, has puzzled military observers.

▶ Moscow blamed Kyiv for drone attacks in some Russian Black Sea regions but said they were repelled with limited damage. Ukraine hasn't claimed responsibility for the incursions.

▶ Lithuania's state-owned energy company, Ignitis, is appealing to its rivals to follow its lead and donate about 10% of last year's profits to help rebuild Ukraine's energy infrastructure.

● Globally, there have been 676 million cases of Covid-19 and almost

6.9m

deaths. The US Department of Energy and the FBI said the pandemic likely resulted from a lab accident in China. Many scientists say there is no evidence for that. China's Foreign Ministry spokeswoman Mao Ning urged the US to "respect science and facts," and stop "politicizing" the issue.



● Israeli settlers torched homes in Huwara on Feb. 27 after two brothers were killed, injuring dozens of Palestinians. Yehuda Fuchs, the Israeli general overseeing troops in the West Bank, told the press that Jewish vigilantes were "spreading terror."

● Eli Lilly will cap out-of-pocket costs for insulin at

$35

a month. The drugmaker made the announcement on March 1, following a public plea from President Joe Biden to lower prices for the diabetes treatment. Lilly will also cut the price of its Insulin Lispro injection to $25 a vial in May and slash the cost of some Humalog and Humulin doses 70% in the fourth quarter.

● European Commission President Ursula von der Leyen and UK Prime Minister Rishi Sunak nudged Brexit toward the finish line on Feb. 27, agreeing on changes to the Northern Ireland Protocol. Their deal still needs to be approved by the EU's 27 member states.



● Bola Tinubu was declared the winner of Nigeria's presidential election.

Tinubu, from the ruling All Progressives Congress party, took 35% of the vote in the Feb. 25 election, while the main opposition candidate, Atiku Abubakar of the Peoples Democratic Party, won 28%. Tinubu's top challenge will be getting finances back on track in Africa's largest democracy. The public debt grew sevenfold, to 77 trillion naira ($167 billion), during Muhammadu Buhari's presidency.

● Goertek, which makes AirPods in China for Apple, is investing an initial

$280m

in a plant in Vietnam and considering expanding into India, according to Deputy Chairman Kazuyoshi Yoshinaga. Global tech suppliers are scrambling to move capacity out of China as tensions escalate with the US.



● "We thought everything was on the up-and-up. I think that was shown when we announced Arizona."

In a deposition for the Dominion Voting Systems defamation lawsuit, Fox Chairman Rupert Murdoch said the network knew the 2020 election hadn't been stolen and acknowledged that Fox commentators were "endorsing" the lie anyway. Fox has said its coverage was protected by the First Amendment.



● US home prices declined for the sixth month in a row; the key S&P CoreLogic Case-Shiller index is down

2.7%

from its peak in June. Buyers retreated from the market late last year, facing mortgage rates more than double what they were at the end of 2021.

● Chicago Mayor Lori Lightfoot lost her reelection bid.

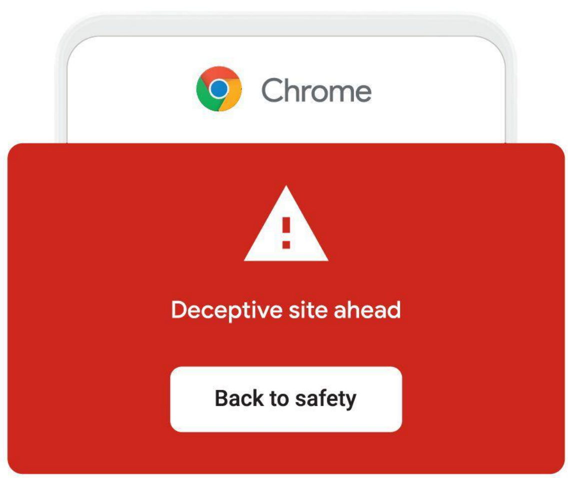
Lightfoot, 60, the first openly gay Black woman to lead a major American city, came in third in the first round of voting on Feb. 28, after failing to overcome dissatisfaction with rising crime and the city's slow economic recovery from the pandemic. Brandon Johnson, 46, a member of the Cook County Board of Commissioners, will face Paul Vallas, 69, the former head of the Chicago school system, in an April 4 runoff.

WEST BANK: HISHAM K.K. ABU SHAQRA/GETTY IMAGES. SUNAK: DAN KITWOOD/GETTY IMAGES. AIRPODS: GETTY IMAGES. MURDOCH: DREW ANGERER/GETTY IMAGES

Google

Malware is increasingly threatening online security

Google Safe Browsing technology was built to block risky sites, protecting over 5 billion devices every day



As threats from malware increase, Google Safe Browsing makes the internet safer by showing warnings to users when they attempt to navigate to dangerous sites or download dangerous files.

Explore how Google is keeping more Americans safe online than anyone else at safety.google

Safer with Google

Biden's Immigration Reforms Deserve A Chance to Work

After years of chaos at the US's southern border, the government says illegal crossings have fallen more than 40% in recent months. These figures suggest that the migration policies President Joe Biden's administration has introduced are starting to deliver results. It's regrettable that politicians in both parties are trying to undermine this progress before it's barely begun.

Since late last year, the administration has employed a carrot-and-stick strategy to contain the surge of people attempting to enter the country. It started a program for migrants from Cuba, Haiti, Nicaragua and Venezuela, allowing as many as 30,000 a month to apply for temporary visas before reaching the border. Under the program, known as humanitarian parole, applicants who have a sponsor, pass background checks and meet other requirements can work in the US for two years while their asylum claims are adjudicated. Border crossers who attempt to circumvent the process are expelled to Mexico, which had previously refused to accept deportees from the four nations the program covers.

Early results have been promising. From December to January, the number of US Customs and Border Protection encounters between ports of entry dropped from 221,675 to 128,410 (the lowest figure in two years), with evidence of continued declines in February. Those numbers may well fall even further, because of a rule announced on Feb. 21 that denies migrants the ability to request asylum without first applying in a country they pass through on the way to the US. Set to take effect in May, the rule adds to Title 42—the policy the government uses to turn away some asylum seekers during the pandemic—by imposing criminal penalties for illegal reentry once initial admission has been denied.

Although it's too soon to declare the border secure, the administration deserves credit for taking steps to correct past failures. Yet far from working to build on these improvements, partisans on both sides are doing the opposite. Twenty Republican attorneys general, including from border states most affected by illegal immigration, have filed suit to try to overturn the administration's parole plan, claiming it violates limits on the executive authority that Congress imposes. And several Senate Democrats have denounced the proposed third-country asylum transit rule, accusing Biden of reviving his predecessor's zero-tolerance immigration policies.

This obstructionism is misguided. The US immigration system requires comprehensive reform to fill labor shortages, attract more high-skilled workers and provide a fair, efficient asylum process for migrants genuinely fleeing persecution. Building public support for such policies, however, is impossible without more aggressive measures to deter unlawful entry—which too many progressives continue to oppose. At the same time, conservatives should recognize that prudent efforts to increase legal immigration can help ease pressure on the border and stem the illegal flow. The attacks by elected Republican officials on Biden's parole program, which appears to have significantly reduced the number of illegal border crossings, betray more interest in continued chaos than practical solutions.

The underlying issues driving the migration crisis—namely, the movement of large numbers of people from across the Western Hemisphere seeking to enter the US—won't be solved overnight, but the administration's approach is a step toward a more rational, orderly system. Leaders from both sides should give it a fair chance to work.

For more commentary, go to bloomberg.com/opinion

AGENDA



► And the Winner Is...

Hollywood is in a good mood after a year that saw filmgoers returning to theaters. That said, neither of 2022's box-office champs—the *Top Gun* and *Avatar* sequels—is considered likely to win best picture at the Oscars on March 12.

► Australia's central bank sets interest rates on March 7; the Bank of Japan, on March 9. Forecasters say the BOJ is likely to continue to defy global trends and keep its key rate at -0.1%.

► The US Bureau of Labor Statistics reports February unemployment data on March 10. With the job market still tight, analysts don't expect much of a change from January's very low 3.4%.

► China posts February inflation data on March 9. Economists believe prices, which began to climb after its Covid-19 restrictions ended, will keep ticking up from January's 2.1%.

► Trip.com and Grindr report quarterly earnings on March 6; Dick's Sporting Goods and Manchester United, on March 7; Embraer and Campbell Soup, on March 8.

► Round-robin play for 20 national teams in the World Baseball Classic begins on March 8. The last event, in 2021, was canceled because of the pandemic. The final is on March 21 in Miami.

► The United Nations marks International Women's Day on March 8. This year's theme is "DigitALL: Innovation and Technology for Gender Equality."

ILLUSTRATION BY RAÚL SORIA

Google

Digital attacks are being used to censor critical information online

Project Shield was built to defend journalists, human rights organizations, and more from these attacks

Human rights groups, news organizations, and more are at risk of DDoS attacks designed to suppress the free flow of information. Project Shield protects these websites from censorship attempts so they can continue providing vital services and publishing newsworthy information.

Explore how Google is keeping more Americans safe online than anyone else at safety.google

Safer with Google



Female Execs Step Back

● Departures of burned-out Gen X managers is shrinking the pipeline that leads women to C-suite jobs

● By Jonnelle Marte

The data alarmed employers and economists as the shock waves of the pandemic hit the US. Women were leaving their jobs in droves. By the end of 2020, their share of the labor force had fallen to its lowest level since 1987. Two years later, the female participation rate is steadily returning to pre-pandemic levels. Problem solved? Not exactly.

Another one is festering below the surface: Many senior-level women, exhausted and torn between their career ambitions and personal lives, are now bowing out. Some are switching to less demanding positions or changing industries, while others are giving up lucrative paychecks and simply walking away, raising troubling issues for the decades-long national effort to diversify the top ranks of corporations. Several recent studies have documented the same disturbing trend—which government data aren't fully capturing.

Reshma Saujani, founder of groups that support female advancement like Girls Who Code, says working women are no longer willing to tolerate companies that don't support them in their roles as mothers. The exodus of women in leadership roles "should really be a wake-up call for corporate America."

A 2022 survey that McKinsey & Co. conducted for women's advocacy group LeanIn.Org—started by Sheryl Sandberg, who in 2022 departed as chief operating officer of Meta Platforms Inc.—found that women leaders were leaving companies at the highest rate since the groups began collecting data in 2017. "This is wildly problematic for organizations because women are still underrepresented," says Rachel Thomas, LeanIn.Org's chief executive officer. "So now companies are losing their few precious leaders on top of that."

A March 1 study by Chief, a private network of companies that support women in executive roles, and the IBM Institute for Business Value identified an equally worrisome problem: The pipeline for female leaders has also hollowed out in the middle, with a smaller share of women in vice president and senior vice president roles than before the pandemic.

Besides Sandberg, the list of high-level resignations includes YouTube CEO Susan Wojcicki, one of Silicon Valley's most prominent female leaders who also helped create Google's advertising business. Amy Hauk, brand CEO at Victoria's Secret & Co. and its sister company, Pink, is departing after less than a year on the job, during which she helped oversee a major restructuring.

ILLUSTRATION BY KATI SZILÁGYI

The problem has become so acute that companies including Amazon.com Inc. and Goldman Sachs Group Inc. have launched or expanded programs called "returnships," the name for a variety of strategies that help make jobs more appealing to women and other people who've left the workforce.

Labor market experts say the extra duties assumed during the pandemic by many Gen X women—those born from 1965 to 1980—are taking a belated toll. The surprise is that data from the US Department of Labor showed women in that demographic were less likely to leave the workplace during the pandemic. At its start, Jennie Blumenthal led a 250-person team as a partner with consulting firm PricewaterhouseCoopers LLP, helping companies in the collapsing leisure and hospitality industry reinvent themselves. She found the work grueling but rewarding—with the side benefit that she no longer spent the workweek on airplanes and in hotels away from her kids.

Yet once the initial shock of the crisis passed and her responsibilities became more sales-driven, Blumenthal, 45, says she felt disconnected from the work. Having the time at home also gave her an opportunity to reflect on her career track. She quit her job in October 2020 and started a business coaching female executives. She also interviewed 300 executives facing similar challenges for a book, *Corporate Rehab*, in which she shares their stories and offers guidance on how to reassess career paths. "I got to a point where I was just experiencing extreme burnout," she says. "But my burnout was really twofold. It was the time and energy in terms of huge hours, but it was also this disconnection from purpose that I didn't realize I felt until we were in the middle of the pandemic."

The departures threaten to shrink the pipeline that feeds the next generation into C-suite jobs, setting back private and public efforts to move more women into top corporate roles just as those initiatives had begun paying off: According to data compiled by Bloomberg, the number of female CEOs at companies in the S&P 500 climbed 32% in the past year. But that means there are now a grand total of 41 women running the US's biggest companies, up from 31 a year ago.

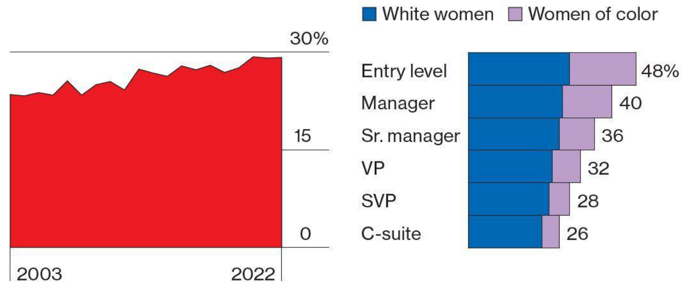
Even though government data don't track the status of women in various senior roles as private-sector groups do, the US's stats are starting to reflect the stalled progress. Only 29.2% of chief executives were women in 2022, a number that's barely budged since 2020, when it was 29.3%, according to the Labor Department. Counting all management occupations, women make up 40.5%, down slightly from 2021's 40.9%.

Those figures are only poised to get worse. The October LeanIn.Org report said that for every woman at the senior manager level who gets promoted, two leave. Using data from 333 organizations and surveys of 40,000 people in the US and Canada, the report found that, in the five years since 2017, the share of C-suite jobs held by women increased by only 6 percentage points, to 26%. Of those, a mere 1 in 20 are women of color.

Stalled Progress

Share of women CEOs in the US

Share of employees, start of 2022



DATA: BUREAU OF LABOR STATISTICS, SURVEY OF 333 COMPANIES IN THE US AND CANADA CONDUCTED BY LEANIN.ORG AND MCKINSEY

Stress and exhaustion were the biggest problems women cited. More than half of female employees at the senior manager level and above said they were responsible for most or all of their family's housework and child care, compared with 13% of men at the same level. Respondents said they also did more than male colleagues at work to support employee well-being and to foster diversity and inclusion, resulting in better retention and employee satisfaction. But such efforts often aren't acknowledged in performance reviews. It's no wonder that 43% of women leaders said they were burned out, compared with 31% of men at the same level.

For years, the advice women received centered around steps they could take, such as seeking out mentors. Now there's a growing awareness that companies need to make structural changes to help them thrive at work and at home. "What we needed was control over our schedules. We needed gender-neutral paid leave. We needed supported child care. We needed to be paid equitably," says Saujani of Girls Who Code, a nonprofit that seeks to increase the number of women in computer science. "We were focused on the wrong things."

Plagued by labor shortages, companies are experimenting with returnships. Some offer paid temporary positions as an on-ramp to women who might consider coming back. Tami Forman, executive director of Path Forward, which helps start such programs, says she's worked with dozens of companies, including Amazon, Disney and Allstate, since 2016. Forman says her corporate partners on average convert 80% of returnships to full-time positions.

An Amazon returnship allowed Arathi Shankri to resume her career as a software engineer in 2021 after spending two years out of the workforce to focus on her family and three years teaching programming at a community college. When Shankri, 46, wanted to move back into the tech industry in a software job, she found that companies didn't appreciate her teaching experience and were slow to respond to inquiries. But the 16-week Amazon program allowed her to use expertise she'd developed over 17 years.

Amazon has now hired Shankri full time and given her wider responsibilities, including managing teams and leading large-scale projects. "Just because you paused, you don't have to take a step back," she says. "You can just continue from where you left off." Ⓑ —*With Shruti Singh and Jeff Green*

The Sun Sets On Hollywood Dealmakers



YELLOWSTONE: PARAMOUNT/ALAMY. RALES: RODIN ECKENROTH/GETTY IMAGES

● Sales of small film and TV studios have cooled as the industry braces for a slowdown

Tom Quinn thought he had a deal. The chief executive officer of Neon, the distributor behind such films as *Parasite* and *I, Tonya*, last year agreed to sell the company for more than $100 million to Steven Rales, the billionaire industrialist and backer of director Wes Anderson. But Rales got spooked by the shaky economy and pulled out at the last minute, according to a person familiar with the matter.

A slowdown in spending by streaming services, higher interest rates and a tough regulatory climate have cratered the once-hot market for independent film and TV studios. Although deals could still come together, at least a half-dozen other companies have explored—and thus far failed to close—sales, including J.J. Abrams's Bad Robot, British visual effects maker Cinesite and kids' media company PocketWatch Inc., according to people familiar with those situations who, like others cited in this story, asked not to be identified discussing private negotiations. The companies all declined to comment. Neon's Quinn also declined to comment, and Rales didn't respond to emails and calls.

Bigger players such as Lions Gate Entertainment Corp., which is looking for investors in its studio or its Starz streaming service, and Hasbro Inc., which is trying to sell the bulk of its Entertainment One production house, have also failed to consummate deals. "People seem gun-shy," says Rich Greenfield, co-founder of media research and investment firm LightShed Partners. "The universe of buyers is limited by the regulatory environment and the debt capital markets."

Even 101 Studios, the production company behind the hit series *Yellowstone* and a growing constellation of spinoffs, has struggled to find a deal it likes. Founded by industry veteran David Glasser, 101 last year hired investment bank LionTree to help some of its investors sell their stakes. Then it decided to explore a sale of the entire company after receiving interest from at least one party, according to two people familiar with the matter. But 101 hasn't found

Edited by
David Rocks

a buyer willing to pay what it wants. Glasser and 101 declined to comment.

Studio owners had reason to dream big. In 2021, Reese Witherspoon's Hello Sunshine sold for $900 million, and SpringHill Co., a production house backed by NBA star LeBron James, raised money at a valuation of $725 million. But rising interest rates have increased borrowing costs, and the S&P 500 is down 18% from its January 2022 peak, lowering the value of shares that public companies use as currency for deals. So potential sellers such as Neon and 101 aren't seeing the rich proposals they might have drawn two years ago. Prices offered for production companies have plunged from 20 to 30 times earnings a couple of years ago to multiples of 8 to 15 today, according to people who track negotiations.

The global regulatory climate is also an issue. The Biden administration has stopped media mergers such as the union of publishers Penguin Random House and Simon & Schuster. In February, the Federal Communications Commission delayed the $5.4 billion purchase of TV broadcaster Tegna Inc. by a private equity group. And Microsoft Corp. is awaiting European approval of its $69 billion purchase of video game publisher Activision Blizzard Inc., which was announced in January 2022 (page 14).

A lot of recent dealmaking was inspired by the insatiable appetite of new streaming services, which spent tens of billions of dollars a year on programming to lure subscribers. Private equity firms and other money managers wanted a piece of the growing programming pie. That's stopped. With investors pressuring them to rein in costs, media companies have gone from bragging about what they're spending on shows to bragging about how much they're cutting. "Why do I wanna invest in a production company when I don't know what their output looks like two or three years from now?" asks Michael Nathanson, a principal at research firm SVB MoffettNathanson. "You're seeing a real chill in projections of content spending, and there is too much uncertainty around what you are underwriting."

Many private equity firms interested in Hollywood have already made a deal or two, and major strategic buyers are constrained by Wall Street's growing skepticism about streaming. Even giants such as Walt Disney, Netflix and Comcast are either cutting costs or waiting to see if smaller players get desperate enough to sell for less. Comcast Corp., which pursued an unsuccessful tieup with video game publisher Electronic Arts Inc., must sort out its one-third stake in the Hulu streaming business before it takes on another deal, according to two people familiar with the company's plans. The cable-TV giant can trigger a process to sell its share of the service to majority owner Walt Disney Co. at the end of this year, but Disney CEO Bob Iger has signaled he might want to sell Hulu.

As for Neon, a sale would've given Rales, the founder of medical and environment testing equipment maker Danaher Corp., a leading film distributor to go with his production company, Indian Paintbrush, which has backed more than a dozen films—including Anderson's *The Grand Budapest Hotel*. And it would've delivered a handsome payday to Dan Friedkin, the Texas businessman who controls Neon and owns Italian football club AS Roma SpA. But as bankers and dealmakers say these days: Wait till next year. —*Lucas Shaw*


● Rales

THE BOTTOM LINE Rising interest rates, a tough regulatory climate and a pullback by streaming services have pushed offers for studios down from 20 to 30 times earnings to multiples of 8 to 15 today.

Sanctions Can't Clip Russia's Wings

● Carriers are operating more flights than expected as the industry finds workarounds

As western Europe and the US imposed sanctions last year in response to Russia's invasion of Ukraine, civil aviation looked like a promising place to inflict maximum pain. Russian airlines, after all, fly jets mostly from Airbus SE and Boeing Co., which are barred from doing business in Russia. And more than two-fifths of those aircraft were owned by foreign leasing companies that immediately demanded their property back.

But one year into the war, Russian carriers are still operating 467 Airbus and Boeing jets, versus 544 a year ago, according to researcher Cirium. Although Russia's airlines have eliminated flights to the US, western Europe and allied countries, they've ramped up service to Thailand, Turkey and the United Arab Emirates, alongside former Soviet republics such as Armenia, Kyrgyzstan and Tajikistan. They fly about 1,100 daily domestic flights, down about 15% from a year earlier—a much smaller decline than Ukraine's backers had expected after sanctions.

The resilience underscores the limits of sanctions when targeted industries find ▶



◀ workarounds or turn to less restrictive partners. Although Russia's output contracted for three quarters, the downturn was a fraction of the collapse predicted shortly after the invasion as surging commodity prices pumped money through the economy. To keep its travel sector afloat, the Kremlin barred any return of the leased planes to their owners abroad and encouraged carriers to re-register them in Russia. So most of the jets continue to fly, though they're cut off from crucial software upgrades and upkeep mandated by regulators that are needed to guarantee their airworthiness.

Aircraft operators must adhere to a rigorous maintenance regime overseen by licensed engineers and governed by national or pan-national regulators such as the US Federal Aviation Administration, the European Union Aviation Safety Agency or Russia's Federal Agency for Air Transport. In addition to daily inspections, planes require more intensive service after roughly 200 flights and heavy checks every decade or so, when they're taken apart for a thorough examination. Boeing says it hasn't provided parts, maintenance or technical support to airlines or maintenance companies in Russia since early last year, in line with US sanctions. Airbus says it isn't in contact with airlines in Russia, but it's starting to hear about difficulties keeping planes flying as they struggle to replace missing components.

Russian carriers are sourcing parts from "friendly" countries and have moved components from one aircraft to another, the Kremlin's aviation regulator told Russian business daily *RBC* on Feb. 1. The regulator in February approved an agreement with Dubai engineering firm Global Jet Technic, which says it performs routine preflight inspections on Airbus and Boeing planes flown by Russian airlines. As carriers cannibalize planes for parts, sanctions mean they can't buy certified replacements. Airlines are required to log every component that they repair or replace, along with documentation of the provenance of parts used. With the Russians now operating outside the established global regime for tracking those changes, the planes likely lack those records in sufficient detail, rendering them effectively impossible to resell.



Iran's experience illustrates why undocumented maintenance isn't sustainable in the longer term. Decades of sanctions have left the Islamic Republic with out-of-date aircraft and a dismal safety record. Its aviation sector relies on a network of middlemen who skirt restrictions and procure spare parts and sometimes entire planes. Russia's situation is more complicated because its airlines mostly fly newer, more complex models, says John Strickland, an aviation consultant in London. "These are state-of-the-art aircraft that are unlike the older, previous-generation planes that Iran's carriers operate," he says. "Russian airlines are likely using every bit of initiative they can to keep their fleets flying, but it will keep getting harder."

Another goal of sanctions was to isolate Russia, but that's also had mixed results. The Kremlin has closed its airspace to western European and US carriers, forcing aircraft to make long and expensive detours on flights to Asia. It remains open, however, to airlines from friendlier countries such as the UAE, which have added service. Russian airports today are served by about 270 international flights daily, versus 300 a year ago, Cirium says. "Clearly the sanctions didn't work as the West thought they would, and the global aviation industry is a lot leakier than anyone thought," says industry consultant Richard Aboulafia. "Yes, safety will deteriorate the longer these sanctions go on, but it's clearly not going to bring connectivity within Russia and from Russia to a grinding halt." —*Siddharth Philip*

THE BOTTOM LINE Russia has 1,100 domestic flights a day, down 15% from a year ago, and international routes have fallen 10% as carriers add service to places such as Turkey and Thailand.

A Slow Rebound In Macau

● As Beijing cracks down on vice, the gambling hub is bracing for a future with fewer high rollers

After three years of limping through the pandemic, the Chinese gambling hub of Macau is coming back to life. Over the Lunar New Year holiday in January, the former Portuguese colony's cobblestone streets teemed with visitors, restaurants filled with diners digging into specialties such as poached codfish and pastel de nata, and the city's dozens of casinos were packed. "I'm ecstatic," says Kwan Man Chi, owner of a snack shop in the historic center. Last year "we only needed one person to run things. Now we have five, and we're still really busy."

PUTIN: PHOTO ILLUSTRATION BY 731. AEROFLOT: GETTY IMAGES. MACAU: EDUARDO LEAL/GETTY IMAGES. DATA: MACAU GAMING INSPECTION AND COORDINATION BUREAU, NEVADA GAMING CONTROL BOARD

The rebound comes as welcome news for a casino industry that analysts predict racked up $1.2 billion in losses last year. The enclave unseated Las Vegas as global betting capital in 2006, but it was hammered by the border closures of China's Covid Zero rules. After topping its US rival in revenue for more than a decade—sometimes sevenfold—Macau last year fell behind again, booking a little more than $5.2 billion, compared with $8.3 billion for the Las Vegas Strip.

Even as it recovers—gambling revenue jumped a third in February—Macau's long-term challenges are coming into sharper focus. As the only city in China that allows casinos, it's at the center of a clampdown on vice. China is demanding that Macau, where gambling accounts for 80% of local government income, reduce its reliance on blackjack and baccarat and reenvision itself as a more family-friendly entertainment hub similar to Las Vegas.

Macau's government last June gained tighter control over casinos just as licenses were due to expire. All six operators in the city renewed their permits, but they had to commit to investing a combined $13 billion-plus over the decade in nongambling activities, which the government says will help draw more overseas visitors. Ben Lee, a partner at consultant IGamiX in Macau, says that plan leaves casinos paying the bill for the transformation even as they see fewer big-spending VIPs. "They're going to spend money promoting sports events, building gardens or whatever, but they're never going to recover the money," Lee says. "The age of superprofit is a thing of the past." Casino operators all declined or didn't respond to interview requests.

Unlike Las Vegas, where entertainment, dining and hotels provide more revenue than betting, Macau is primarily about the action at the tables. UBS Group AG predicts its gambling revenue won't reach 2019 levels until the late 2020s, and without a steady stream of high rollers, casinos will need to rely increasingly on mass-market tourists, who spend less than a fifth of what higher-end gamblers do, Credit Suisse Group AG estimates. "We expect the pace of recovery will start to slow meaningfully," Credit Suisse analysts wrote in a January note.

New rules crack down on so-called junket operators, which used to woo wealthy mainland gamblers with such perks as private jets, luxury suites, prostitutes and—most important—credit to keep them at the tables. Macau police in 2021 arrested Alvin Chau, an industry highflier closely associated with junkets, and he was sentenced to 18 years in prison on charges of illicit gambling, criminal association and fraud. Local media say Chau has appealed the verdict. With loans to clients now barred, one junket operator is lobbying the government to host poker tournaments to attract foreigners, according to a person familiar with the matter, who asked not to be identified because the plans are private.

Macau has little choice but to follow the path laid out by the government in Beijing, and some industry watchers say the changes will benefit the city in the long term. JPMorgan Chase & Co. says junket customers might now instead go directly to casinos for similar services, potentially generating higher profit for the operators. The surge in mainland visitors is likely to last longer than predicted, says Morgan Stanley analyst Praveen Choudhary, who points to the sustained boosts seen in Singapore and Las Vegas as travelers crave new adventures post-Covid-19. And given the enclave's proximity to the mainland and shared culture, "there's no competition for places where you can gamble," Choudhary says. "So Macau should do well."

There are signs, though, that China aims to restrict access for Macau's most lucrative guests. Even after scrapping Covid restrictions in January, Beijing has maintained increased scrutiny of frequent visitors. Some people who've come more than three times in the past year have been required to apply for visas in person instead of electronically, according to an industry insider, who asked not to be identified because of the sensitivity of the matter.

After the disastrous years of the pandemic, locals are bracing for a future with fewer visitors, especially the high rollers who are the backbone of the city's economy. Although the holiday was busy, "the summer will be quieter," says Wah Ng, a taxi driver who used to ferry wealthy gamblers between casinos. "We've lost a lot of big spenders." *—Shirley Zhao and Jinshan Hong*

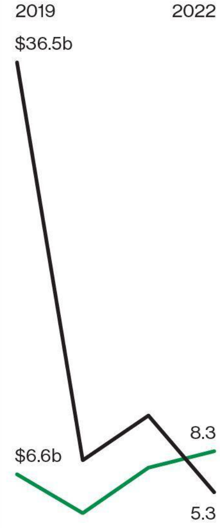
▼ Macau during the Lunar New Year holiday



▼ Annual gambling revenue

Macau

Las Vegas Strip



THE BOTTOM LINE Gambling revenue likely won't reach 2019 levels until the late 2020s as casinos increasingly rely on mass-market tourists, who spend less than 20% as much as high rollers.

Microsoft Gaming Beyond the Xbox

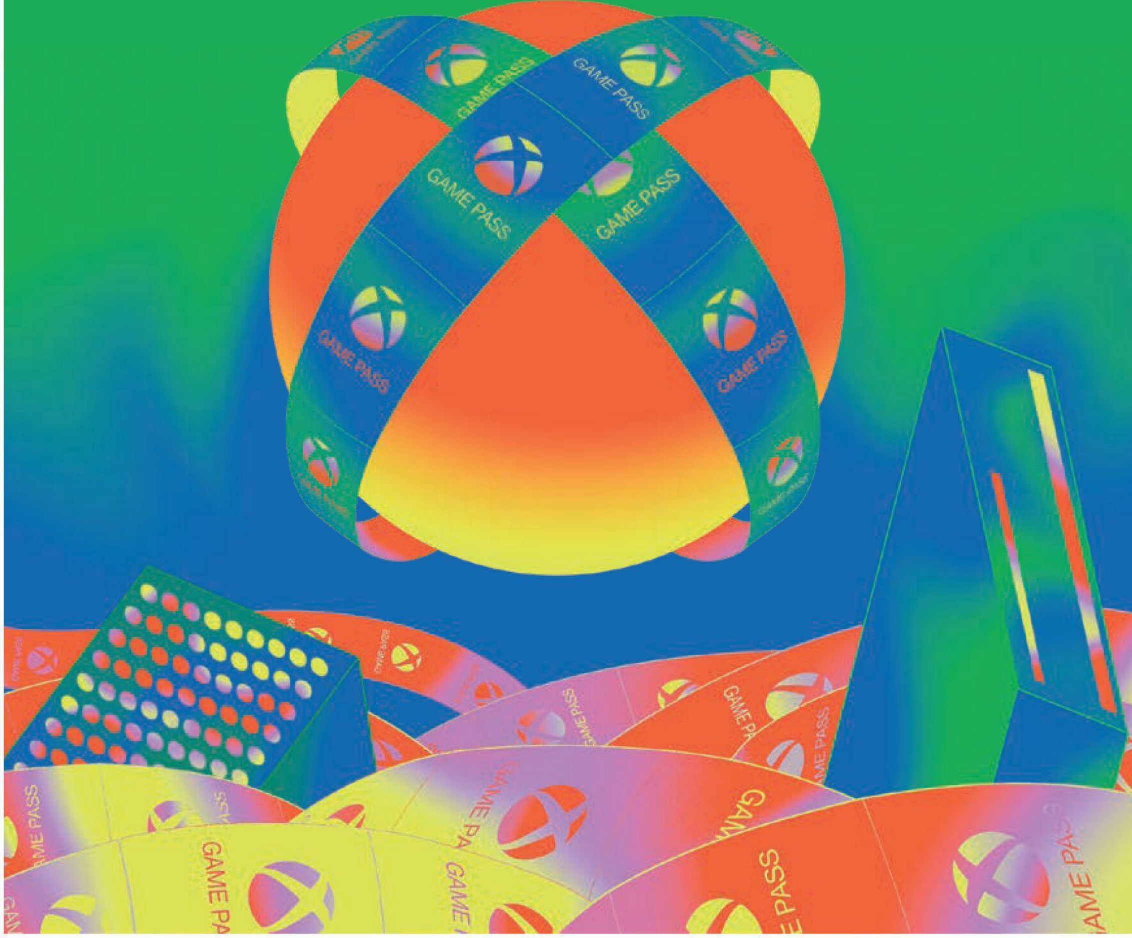


ILLUSTRATION BY SAIMAN CHOW. BOND: COURTESY MICROSOFT

● Its Game Pass subscription service expands into dozens of new countries

The Xbox console has been the key to Microsoft Corp.'s clout in the gaming industry since its release more than two decades ago. As gaming continues to expand far beyond bulky devices that people plug into their television sets, the company is evolving to keep pace with gamers. But its transformation is beginning to raise hackles among regulators who say Microsoft could be even more dominant in the industry's next era, especially if it completes its proposed $69 billion acquisition of gaming giant Activision Blizzard Inc.

A key to Microsoft's strategy is Game Pass, a six-year-old service that charges users $10 to $15 a month to play a collection of more than 400 games on the Xbox, Microsoft's Windows PC operating system, smart TVs, smartphones and tablets. As of January, the number of users who used the service on three or more devices had grown 20% compared with the same period the year before. On Feb. 28 the company expanded Game Pass on PC to dozens of new markets, including in Latin America, the Middle East and Eastern Europe, almost doubling its roster of countries to 86.

Gaming subscription services are currently a relatively small portion of the broader gaming market. But Microsoft sees its Netflix-esque gaming experience, running on a wide range of devices, as the future of video games. "When I look at the industry

Edited by Joshua Brustein

today, that's not where it is, but it is where it wants to be," says Sarah Bond, Xbox's vice president for game creator experience and ecosystem.

The company's success with Game Pass, which has more than 25 million subscribers, has been notable in comparison with its major competitors. Amazon.com Inc.'s Luna service has been steadily losing games in its catalog, and Alphabet Inc.'s Google shuttered its game subscription service altogether in January. Even Sony Group Corp., long the leader in the gaming market, is struggling to compete. It hasn't offered its biggest gaming titles on its own subscription service, PlayStation Plus, with the initial release, depriving Sony of the hype Microsoft attracts with splashy Game Pass releases.

Microsoft has clear advantages over its competitors in both content and infrastructure. It owns about two dozen game studios, including the ones behind hit franchises *Minecraft* and *Halo*, and has built-in delivery systems on the Windows operating system and Xbox console. It also operates one of the world's biggest cloud computing networks in Azure. This is a crucial distinction between Microsoft and Sony when it comes to cloud gaming, where games are streamed directly from central servers instead of downloaded in advance. One tier of Game Pass offers cloud gaming, and Microsoft's cloud network helps it to provide the service with low latency, the lag time between when something happens on a server and when it's reflected on a user's device. "Azure and Xbox cloud streaming are separate and run on different infrastructure," said David Cuddy, Microsoft general manager for public affairs, in an email.

"It's a big, industrial-sized investment," says Joost van Dreunen, a lecturer on the business of games at New York University's Stern School of Business. "By taking the games out of the box—away from the PlayStations and Xboxes—and turning them into a digital service, or ultimately a cloud-based service, Microsoft finally found a way to outmaneuver the PlayStation."

This year's geographic expansion allows Microsoft to capture audiences for whom console gaming has historically been out of reach. "A lot of folks are going to be experiencing Xbox for the first time," says Xbox Chief Marketing Officer Jerret West. For much of the Game Pass activity in regions such as Latin America and Southeast Asia, streaming can "play more of a primary role in a gamer's experience," he says.

Microsoft declined to share the total number of subscribers in any market but says Game Pass membership in Vietnam, which is available only on PC, doubled in January alone. Overall, Game Pass membership has doubled over the past two years across Asia, where 80% of the online population plays mobile games.

Microsoft's interest in buying Activision Blizzard is centered on securing content to draw in new gamers. Activision Blizzard makes some of the most recognizable titles for core console gamers and casual smartphone users. Its first-person shooter *Call of Duty* has tens of millions of monthly active users, and King, its subsidiary that publishes the mobile gaming megahit *Candy Crush*, attracted 233 million monthly active users in the quarter that ended December 2022.

Regulators in Europe, the US and the UK, who are all reviewing the deal, are already expressing concerns about competition in a nascent market. "Microsoft has a combination of assets that we provisionally consider is difficult for other cloud gaming service providers to match," the UK's Competition and Markets Authority, the country's primary antitrust regulator, wrote in its preliminary findings in February, citing the Windows operating system, Xbox Cloud Gaming and Azure, and Microsoft's existing ecosystem of consoles and games. The CMA wrote that the merger could result in a "substantial lessening of competition" in the console and cloud gaming services markets.

Microsoft doesn't make the terms of its Game Pass licenses public, but developers say they often receive upfront payments to include their titles in the catalog, along with bonuses for games that do well on the service. A major plank of its pitch is that Game Pass brings a level of sustained engagement.

Some skeptical analysts and developers say that engagement on streaming comes at the expense of more lucrative one-off sales, echoing the complaints that musicians have about streaming services. In its preliminary findings, the CMA wrote that Microsoft's internal documents "recognise that adding titles to Game Pass would lead to cannibalisation" of traditional game sales. It's hard to tell how this dynamic is playing out today, in part because many of Microsoft's partners are reluctant to discuss the specifics of their arrangements. Most publishers contacted for this story didn't comment, some citing a concern that doing so could damage their relationship with Microsoft.

Mike Rose, founder of game publisher No More Robots, saw the benefits of Game Pass when he put the mountain biking game *Descenders* on the service in 2019. The game had been available for more than a year, but sales quadrupled soon after he added it to Game Pass. Rose now aims to get all of No More Robots' games on the service. Jason Kingsley, chief executive officer of Rebellion ▶



● Bond

◀ Developments, the British maker of zombie and *Alien vs. Predator* games, says that when he adds titles to Game Pass, sales of many of his company's other games increase despite not being on the service themselves. About 20% to 30% of people who play games on Game Pass also purchase additional downloadable content, Kingsley says.

Still, the biggest games today seldom get released on Game Pass unless they come from Microsoft-owned studios. Many indie game developers remain wary about Microsoft's power to use Game Pass to determine which smaller games succeed. That, more than the impact on Sony, should interest regulators, says George Jijiashvili, an analyst at Omdia: "Is this perhaps too much power for one entity to have in terms of subscriptions?"

Microsoft says it gives a wide assortment of indie games companies a shot at Game Pass. There are more than 125 titles from Microsoft's ID@Xbox indie game program in the Xbox version of Game Pass and more than 140 in the PC version. And if indie developers sour on Game Pass, the game service landscape is currently fragmented enough to give developers various distribution options, Jijiashvili says. If Microsoft continues to outrun the competition, that may not always be the case. *—Cecilia D'Anastasio and Dina Bass*

THE BOTTOM LINE Regulators are taking Microsoft's large lead in subscription gaming into account as they scrutinize the company's plan to buy Activision Blizzard.

Big Business Piles on Lina Khan

● The FTC chair has become the main focus of groups working against the Biden administration's efforts to revive antitrust policy

Lina Khan has made no secret of her desire to take on what she sees as the excesses of big business. But something seemed to click for corporate America on Jan. 5, when the Federal Trade Commission, the gency she heads, announced a proposed rule that would ban noncompete agreements, contracts that employers use to keep departing workers from taking other jobs in their industry. Some businesses say these contracts help them retain talent and protect sensitive information; the FTC says they're an unfair drag on the economy and that banning them will increase wages by $300 billion annually.

The US Chamber of Commerce set up a series of regular calls almost immediately with more than 100 of its local chapters, business groups and private companies. They've discussed things such as who should lead the lawsuit it's considering filing when the rules are finalized, say two people involved, who spoke on the condition of anonymity to discuss private conversations. "We began to hear unprecedented levels of concern from our members," says Sean Heather, the Chamber's senior vice president for international regulatory affairs and antitrust.

For the past two years, the FTC has been consumed by fights with specific companies—notably the largest US tech corporations. The noncompete rule, by contrast, could have economywide impact, touching approximately 1 in every 5 US workers. Other rules the FTC is working on—such as a plan to crack down on tech companies collecting personal information without permission and new guidelines on how the government should approach mergers and acquisitions—could have similarly sweeping implications.

Tech and business groups, as well as the powerful network of anti-regulation groups that prominent conservative donor Charles Koch has funded, are betting they can stymie the FTC's agenda through a flood of lawsuits, congressional hearings and investigations. They've honed in on the FTC chair, who's turning 34 in March, as the primary symbol of what they see as wrong with President Joe Biden's agenda.

Since 2021, Khan has been mentioned in 43 editorials, op-eds and letters to the editor in the



Wall Street Journal. Jonathan Kanter, who heads the US Department of Justice's antitrust efforts as the assistant attorney general, appears in five. Khan's critics have gotten personal at times, and some people say it's impossible to ignore their sexist tone. "There is no doubt that Chair Khan is being subjected to what's really a disproportionate level of critique that is not based in the substance. It's really based in personal attacks on her gender, her race, age and then also the fact she is trying to use an agency's authority to enforce the law, which has not been done for a generation," says Morgan Harper, director of policy and advocacy at the American Economic Liberties Project, which supports strong antitrust action.

This situation is happening as the Democrats' have seen a string of recent losses in their antitrust agenda. Legislation on antitrust and tech regulation failed to pass before the party lost control of Congress. David Cicilline, the Rhode Island representative who led the effort, recently announced he'll leave Congress in June. There have been widespread reports of discontent within Khan's FTC, and in February the commission lost in its attempt to block Meta Platforms Inc.'s acquisition of virtual-reality startup Within Unlimited Inc., a lawsuit that Khan had brought against the recommendation of her staff. Two weeks later, Christine Wilson, the sole Republican commissioner, announced in the *Wall Street Journal* that she was resigning. "I have failed repeatedly to persuade Ms. Khan and her enablers to do the right thing," she wrote, "and I refuse to give their endeavor any further hint of legitimacy by remaining." Wilson's resignation, effective March 31, seems certain to leave the FTC with a 3-0 Democratic majority for months.

The Competitive Enterprise Institute, a right-wing think tank that has close ties to the oil and gas and tech industries and that has promoted climate change denial, began a campaign in February, "Eye on FTC," which aggregates unflattering news about the agency and encourages people to file public comments. "The norms of the agency itself seem to be in peril," says Jessica Melugin, the CEI's tech policy director.

Melugin says she doesn't condone personal attacks against Khan, but the CEI's campaign includes an ad warning about "unelected bureaucrats" destroying the agency, while flashing images of Khan's face. A separate ad from the Taxpayers Protection Alliance, which receives money from Koch in addition to Amazon.com Inc. and Alphabet Inc.'s Google, accuses Khan of



Who Are the Backers?

Contributors to groups attacking the FTC chair

	Alphabet	Amazon	Apple	Koch-funded groups	Meta
Alliance on Antitrust	X			X	
Chamber of Progress	X	X			X
Competitive Enterprise Institute	X	X		X	X
GMU's Antonin Scalia Law School	X	X		X	X
Information Technology and Innovation Foundation	X	X	X	X	X
NetChoice	X	X			X
Taxpayers Protection Alliance	X		X	X	X

DATA: BLOOMBERG REPORTING

"weaponizing the FTC for her own political goals."

Heather, the executive at the Chamber of Commerce, acknowledges that Khan is a useful political foil. "You go to whatever's hot at the moment," he says. One corporate lobbyist, speaking on the condition of anonymity to speak frankly, says Khan has begun to inspire the almost obsessive conservative ire previously directed at Massachusetts Senator Elizabeth Warren and New York Representative Alexandria Ocasio-Cortez. Khan's critics can seem to be softer when going after other officials pursuing a similar agenda. CNBC anchor Jim Cramer invoked Karl Marx in a monologue criticizing Khan for bringing a lawsuit against Google. When another commentator told Cramer it was actually Kanter's Department of Justice that had brought the lawsuit, Cramer appeared subdued. "Jonathan Kanter is a much more rigorous thinker than Lina Khan," he said in reply.

The FTC declined to comment for this article.

One place where the fight over Khan seems headed is to the GOP-led House of Representatives. On Feb. 28 the Chamber of Commerce sent a letter to lawmakers asking them to "rein in" the agency's rules on noncompete agreements. Although 21 Republican senators voted for Khan's nomination, conservative lawmakers have soured on her. House Judiciary Chair Jim Jordan of Ohio has signaled his intention to scrutinize her and the FTC with document requests and oversight hearings. Among those helping the committee prepare to take her on, say people familiar with the matter, is one of the advisers for departing FTC Commissioner Wilson.

"If the FTC gets too far out over its skis, it short-circuits itself," Melugin says, referring to the time in the 1970s when Congress withheld funding from the agency. "You don't want to be back to where Congress has a good excuse to say, 'We're cutting off your funding.' " —*Emily Birnbaum*

THE BOTTOM LINE Republicans in Congress are targeting the FTC at a time when the agency is pursuing aggressive rules and facing increased criticism from business and conservative groups.

One ad accuses Khan of "weaponizing the FTC for her own political goals"

PHOTO ILLUSTRATION BY 731; PHOTOS: ALAMY (4); GETTY IMAGES (1); SHUTTERSTOCK (1)

The Cost of the Blank-Check Boom



ILLUSTRATION BY DAVID HUANG. COMPANY TRADING PERIODS IN CALENDAR DAYS. DATA: COMPILED BY BLOOMBERG

● The rush to take companies public with SPACs ends with bankruptcies and fire sales

It took only 10 months for Quanergy Systems Inc., a maker of high-tech sensors and software, to go from its stock market debut to filing for bankruptcy. Fast Radius Inc., a 3D-printing company, made it nine months. Online retail startup Enjoy Technology Inc. lasted eight-and-a-half months before it filed.

What these companies all have in common is the way they made it onto the market. Instead of selling shares in a conventional initial public offering, each of them merged with a special purpose acquisition company. A SPAC is a publicly traded corporate shell with no business other than to seek out a merger with another company, which then inherits the shell's listing. Such deals were a pandemic-era Wall Street fad—but now a growing number of ventures that went public in this way have gone bankrupt, highlighting how speculative the SPAC game could be.

Internet service provider Starry Group Holdings Inc. on Feb. 20 became the latest to seek protection from creditors, bringing the count of failed SPAC offspring to at least eight since June 2022. The trend is likely just getting started. Almost 100 companies that listed this way don't have enough money on hand to fund their current level of spending over the next year, data compiled by Bloomberg show. That's on top of the 73 companies that currently trade below $1 a share, risking a potential delisting from major exchanges such

Edited by Pat Regnier

as the New York Stock Exchange and Nasdaq. Since the baseline share price of most SPACs before a merger is $10, a price below $1 also means that an investor who bought into the shell company in anticipation of a deal and held on for the full ride lost at least 90%.

"The value destruction has been spectacular," says Dan Zwirn, co-founder of Arena Investors LP, a debt-focused investment firm. The way Zwirn sees it, troubled SPACs are usually one of two types: totally speculative businesses or reasonable ones that were grossly overvalued. The former will go bankrupt or be quietly wound down, while the latter can be sold for low prices, he says. So far, at least 12 companies that did SPAC mergers have agreed to buyouts for less than they were worth when they listed, according to data compiled by Bloomberg.

Although SPACs have been around for decades, they took off in the trading boom of 2020-21 that also propelled cryptocurrencies and meme stocks. Sometimes called blank-check companies, they have no operations but simply raise money by going public with the stated goal of buying another business in a specified period of time. There was a widespread view that SPACs were a faster, easier way to take cutting-edge companies public, sidestepping some of the legal and regulatory hurdles traditional IPOs face. (The US Securities and Exchange Commission is now mulling tougher rules for SPACs.)

Sponsors can earn big money from SPACs, because they get a chunk of stock in the newly public company if they can close a deal. Meanwhile, the early investors, often hedge funds and other institutions, secure a nice, safe return for a while. That's because each $10 share of a SPAC can be redeemed, with interest typically around 1.5%, before the merger. There's also a sweetener: a "warrant" entitling holders to buy more shares at cheap prices if things go well.

But the low-risk deal that hedge funds got isn't what drew retail investors to blank checks. The companies targeted for acquisition often made highly optimistic forecasts for revenue and earnings growth. And in hopes of getting in early on some hot new business, retail traders would buy SPAC stocks ahead of the expected merger or just after—sometimes paying well above $10. SPACs merged with and took public money-losing electric vehicle startups, early-stage drug developers and a bevy of other companies that promised to change the world.

Sometimes it worked if the retail investor played it right: A SPAC called Diamond Eagle Acquisition Corp. climbed past $17 a share before merging with DraftKings Inc., the online sports betting company, in early 2020. Then the stock, renamed DraftKings, rocketed to a peak of $74 over the next year. (It's at about $19 now.)

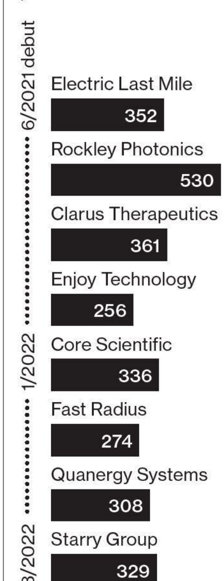
As the hype grew, more and more money piled in. Famous money managers, former politicians and celebrities lined up to start new blank-check vehicles. Over the course of 2020 and 2021, more than 850 SPACs raised roughly $245 billion to use in the hunt for deals. The quality of new offerings declined in a hurry. Sponsors selected more speculative acquisitions or struggled to find worthy deals at all. Then came higher interest rates and the 2022 bear market. Today an overwhelming majority of public companies that were formed when a SPAC made an acquisition—sometimes known on Wall Street as a "de-SPAC"—are trading far below the $10 mark and are years away from turning a profit.

"A lot of the problems with the de-SPAC'd companies is that they're relatively early-stage, capital-intensive companies that are more risky in general," says Usha Rodrigues, a law professor at the University of Georgia and one of the leading academic experts on SPACs. "There was nowhere near that number of viable private companies ready for the public markets."

Many companies have been hurt by a surge in redemptions. When SPAC investors don't like an upcoming merger or simply wish to recoup their money, they can redeem their shares before the deal goes through. Over the past year, the average SPAC saw more than 80% of its shares cashed in, data compiled by Bloomberg show. That compares with a single-digit rate in early 2021. These redemptions mean that companies raise less cash from the deal.

In the case of Starry Group, the company hoped to raise as much as $450 million when it merged with FirstMark Horizon Acquisition Corp. last March, assuming none of the SPAC investors took their money back. But FirstMark shareholders chose to cash in more than 90% of their SPAC shares when they approved the combination. Although other investors also kicked money in, the redemptions reduced Starry Group's bundle ▶

▼ Days from trading debut to bankruptcy of companies brought public via a SPAC



◀ of new money to a little more than $155 million, according to court papers. It traded for about 11 months and now plans to sell itself out of bankruptcy or repay its lenders with new stock.

"It's just a cautionary tale," says Greg Martin, co-founder of Rainmaker Securities LLC, which facilitates secondary transactions for private companies, speaking about SPACs in general. "When something is too good to be true, it's too good to be true. It's so obvious when you look at the valuations some of these companies were getting from SPAC sponsors that it wasn't sustainable." *—Bailey Lipschultz and Jeremy Hill*

THE BOTTOM LINE SPACs seemed to offer a chance to get in on high-growth companies early, but many of them pushed risky companies into public markets.

Who Wants to Run a Humbler PayPal?

● The payments giant has shed $279 billion in market value and is hunting for a new CEO

The whispers kept getting louder: PayPal Holdings Inc.'s chief executive officer might leave.

It was late last year, and shareholders were counting on Dan Schulman to pull the stock out of a slide that's now erased $279 billion in market value since its high point in 2021. But after he flew to Italy for his four-day wedding celebration on the banks of Lake Como, Silicon Valley and Wall Street began buzzing with the notion that PayPal's longtime leader was ready for a change.

At the end of October, Chairman John Donahoe felt compelled to bat back the speculation: "The board has never discussed replacing Dan," he said in a statement to Bloomberg News. A few months later, Schulman himself announced his plans to leave.

So goes the humbling of PayPal—once worth more than Goldman Sachs Group Inc. and Citigroup Inc. combined. After strategy missteps that risk squandering its leading position in the lucrative online payments business, the company is starting from scratch on a CEO search. And it faces a pivotal question: What kind of boss should take over—a cost-cutter or another manager with an ambitious vision for growth?

Schulman himself was a replacement for a group of legendary founders and early executives—the so-called PayPal mafia that included billionaires-to-be Elon Musk and Peter Thiel, as well as tech luminaries Reid Hoffman and David Sacks. He made his own mark building the company to a peak market value of $362 billion as he floated the possibility of more than doubling clients to 1 billion. In 2021 he signaled a slew of products challenging US banks. But PayPal's share price melted amid a slowdown in growth, a bungled attempt to buy Pinterest Inc. and the abandonment of some key targets.

Headhunters are vying for the mandate to find a new CEO and privately conceding it's a tough assignment. Executives across the finance and tech industries are wondering who has the ambition to seek an interview. "We're looking for the best possible candidate," Donahoe says. "It's a matter of finding the right person in the right place at the right time. And that's what a search does."

PayPal got its start as a company called Confinity in 1998 and shot to prominence when it was acquired by EBay Inc. Thanks to that alliance, it signed up more than 100 million users. But by 2014, EBay's investors were getting antsy. Carl Icahn bought a stake and argued that making PayPal independent would help it compete against new payment systems from Apple Inc. and Google.

In came Schulman. The grandson of a union organizer in New York's garment district, he favored denim and hand-stitched boots, telling tales about learning the Israeli martial art of krav maga. Although he had most recently spent four years at American Express Co., he was better known for his earlier work in the wireless industry.

Schulman helped take PayPal public in 2015. The next year he rattled investors by making peace with credit card networks. The detente focused on a practice called steering, in which PayPal had encouraged customers to link bank accounts—rather than cards—to its systems. PayPal began with Visa Inc., promising to present Visa cards "as a clear and equal payment option." The move meant it would have to cough up more to Visa in processing fees, but payment volumes surged. "Those decisions were initially met with a lot of skepticism," says Schulman in an interview. "History proves us out that, really, that decision was what unleashed our growth."

"There's a lot for us to be proud of, and there's a lot we still need to work on"

SCHULMAN: ULYSSES ORTEGA. DATA: COMPILED BY BLOOMBERG



◀ Schulman

More card networks and financial institutions signed similar deals. Today, PayPal processes more than $1.36 trillion in payments a year, up from $282 billion in its first year as a public company. “There’s a lot for us to be proud of, and there’s a lot we still need to work on,” Schulman says.

By 2021, PayPal was riding the pandemic’s surge in shopping at home. At an investor day that February, executives plotted a path for active users to roughly double to 750 million by the end of 2025. Schulman kept musing about getting to a billion. Then came setbacks. EBay began shifting payments to alternative methods faster than PayPal executives thought possible, eroding growth. Vaccines freed consumers to return to stores. Inflation took off, eating into household budgets and limiting the discretionary spending that’s the backbone of PayPal’s business. In 2022 the company closed 4.5 million accounts it said were set up by bots and “bad actors” to take advantage of incentives and rewards programs. It ultimately scrapped the target for new sign-ups, instead focusing on enticing existing customers to make more use of its services.

High-profile executives began leaving, including the company’s finance chief, the chief product officer, and the head of Venmo, the company’s wildly popular peer-to-peer payment app. The departures have left little doubt that PayPal will try to recruit an outsider as CEO. “Investors are very happy that they’re looking externally because the view is that there isn’t anyone internally,” says Lisa Ellis, an analyst at SVB MoffettNathanson. Headhunters trying to brainstorm potential candidates on their own say they can come up with only a few, such as Peggy Alford, who oversees PayPal’s global sales force. “Any name is pure speculation,” says PayPal spokesperson Amanda Miller.

The brevity of such lists underscores how much even the most vocal investors were counting on Schulman to figure things out. When the activist investor Elliott Investment Management announced a stake in August, it said it was looking forward to working with the CEO. But in recent months, as Schulman neared his 10th year at PayPal and his 65th birthday, routine conversations about succession gained more urgency, according to people familiar with the matter who asked not to be named because the discussions were private.

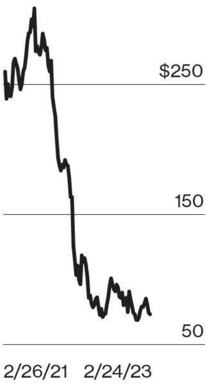
Schulman aims to leave by the end of the year. But he has reassured staff and shareholders that he will stick around long enough for the board to finish its search. He continues to reduce costs, cutting thousands of jobs this year and recently announcing that he’s identified an additional $600 million in expenses to eliminate. In February he predicted that adjusted profit will climb 18% this year, exceeding the estimates of analysts.

That hasn’t turned around the stock. Analysts say there’s a worry investors can’t shake: Apple, which unveiled its foray into payments in September 2014—the month that PayPal hired Schulman. After fits and starts, Apple’s system is catching on, with the Apple Pay button appearing on about 28% of top retailers’ websites, inching toward PayPal’s more static 79%.

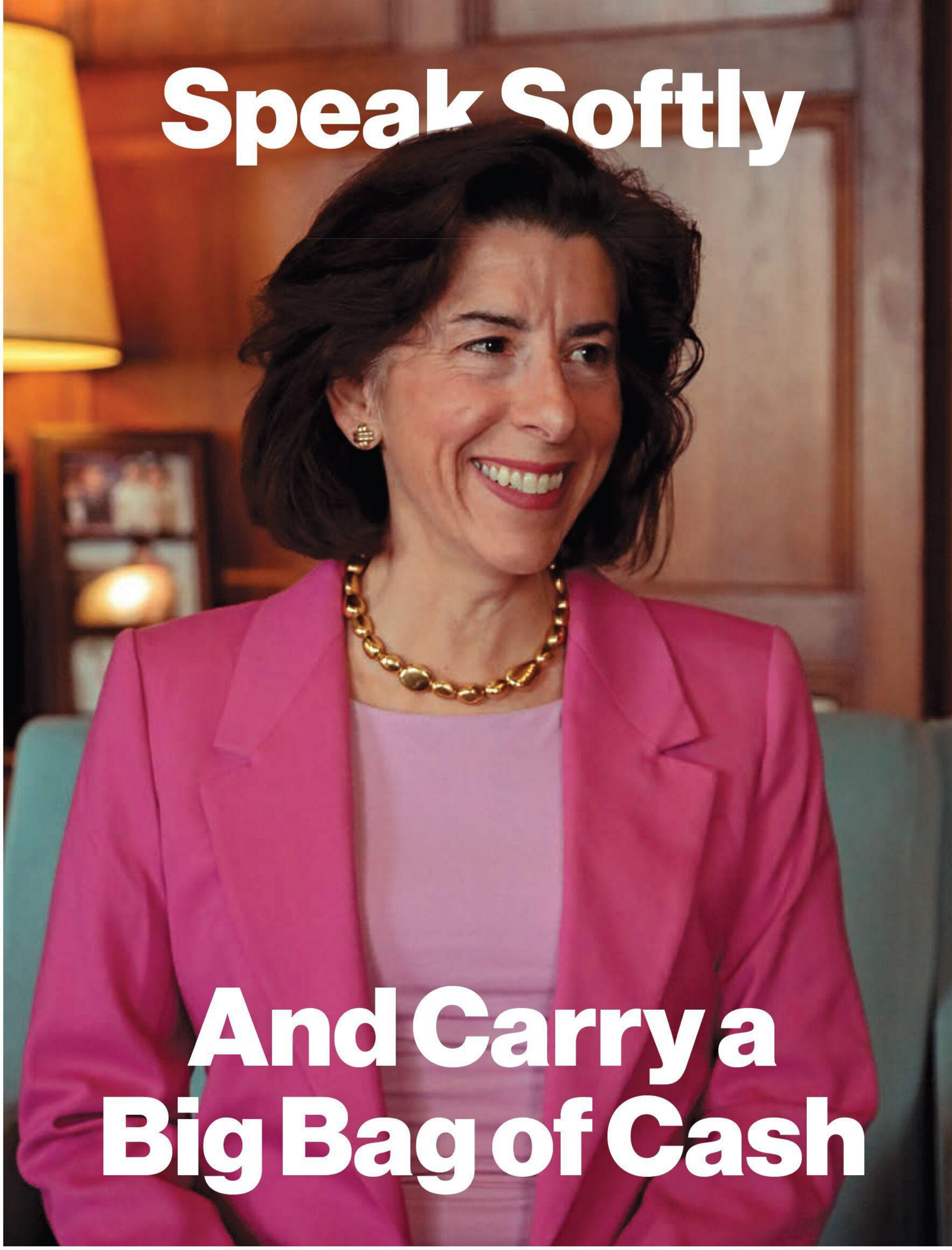
PayPal’s Venmo is also facing competition: A consortium of banks launched the rival Zelle in 2017. Block Inc., the parent company of credit card processing company Square, offers its own Cash App, too. Andrew Bauch, an analyst at SMBC Nikko Securities America Inc., predicts PayPal will someday end up the subject of a business school case study about a tech pioneer that wasted an incredible lead. “Part of that is going to be laid at the feet of the CEO,” he says. —*Jenny Surane and Hannah Levitt*

THE BOTTOM LINE The pioneer of online payments is facing competition on every side as the CEO plans his exit, and there’s no obvious successor in the wings.

▼ PayPal share price, weekly



Speak Softly And Carry a Big Bag of Cash



PHOTOGRAPH BY SCHAUN CHAMPION FOR BLOOMBERG BUSINESSWEEK. DATA: SEMICONDUCTOR INDUSTRY ASSOCIATION

● From chips to TikTok, Gina Raimondo is writing her own China doctrine

Gina Raimondo is the first to admit that she often can't see the line between work and play—or even work and pray.

It happened when a friend threw her a welcome-to-DC party in the summer of 2021 to celebrate her appointment as secretary of commerce. Instead of mingling with guests, Raimondo set up a war room at her host's home where she and a group of aides holed up for hours negotiating the broadband portion of the infrastructure bill with lawmakers. She calls it "a classic Gina moment" that left her only "mildly embarrassed." Then there was the time she tried to corner then-House Speaker Nancy Pelosi at church one Sunday in late 2021, when Congress was debating what became of the US Chips and Science Act. Raimondo says her husband dissuaded her, telling her it was neither the right place nor the right time. She shrugs it off: "It's fair game. It's a public place. It's Nancy Pelosi—she works all the time."

The usually sleepy US Department of Commerce is not a sought-after perch for those looking to make their mark in Washington. Raimondo's predecessor, Wilbur Ross, had trouble staying awake on the job.

Edited by
Cristina Lindblad

But the 51-year-old former Rhode Island governor is injecting new energy into the role, which under President Joe Biden has become more high profile—and more politically perilous.

Raimondo oversees a lot of what is China policy these days. Her department manages the so-called Entity List, which designates foreign enterprises that are banned from importing American technology without prior approval. The current list names more than 600 Chinese entities; among the latest additions are several aviation companies that manufacture observation balloons like the one the US shot down over the Atlantic in February. Commerce has also been tasked with developing a strategy to address the potential security threat posed by TikTok, the massively popular Chinese-owned app.

Raimondo's crowning achievement so far is helping steer the $280 billion Chips Act through Congress, an 18-month slog during which the legislation at one point looked doomed to die with the rest of Biden's "Build Back Better" plan. (She and her staff celebrated its passage last summer by feasting on an assortment of potato chips.)

The law seeks to restore the US to the status of one of the world's leading producers of advanced semiconductors—and, by extension, deprive China of the wherewithal to fulfill its own objective of incubating a globally competitive chip industry. The US accounted for just 11% of the global production of chip wafers in 2021, and its share of such activities as assembly and packaging was a paltry 3%, according to the Semiconductor Industry Association.

"I feel the weight of the world on this one," says Raimondo, who in her decade working in venture capital handed out checks much smaller than the ones she'll be writing out of a $52 billion kitty to encourage chipmakers to build new plants in the US. "This is the first major industrial strategy in probably 70 years. And if we don't succeed, it'll be the last for the next 70 years."

Sitting in her office, surrounded by drawings that her teens made when they were younger, Raimondo says she expects many in the industry won't be pleased with the strings that come attached to the government money. "It's going to be many months before we do a big funding announcement," she says.

"There's a lot at stake for our industry and the country," says John Neuffer, head of the Semiconductor Industry Association. "If the guidelines are too restrictive, you risk scaring away applicants."

According to the rules, which were released on Feb. 28, companies that receive grants will be prohibited from opening or building out plants that make advanced semiconductors in China and a handful of other countries for 10 years. Applicants that receive more than $150 million in direct funding will have to share with the government a portion of profits above a specified threshold. They'll also face restrictions on dividends and buybacks.

Both Democrats and Republicans are eager to avoid handing taxpayer money to companies later deemed unworthy. Recall the scandal over Solyndra, a startup that in 2009 received $535 million in government-guaranteed loans to build a solar panel factory in California and filed for bankruptcy two years later. The incident was a black eye for the Obama administration and its efforts to deter China from dominating the market for clean energy hardware. In 2018 then-President Donald Trump hailed Foxconn's plan to build a manufacturing complex in Mount Pleasant, Wisconsin, with the aid of close to $3 billion in state incentives, calling the future plant "the eighth wonder of the world." Wisconsin renegotiated the deal in 2021 after the company failed to meet milestones.

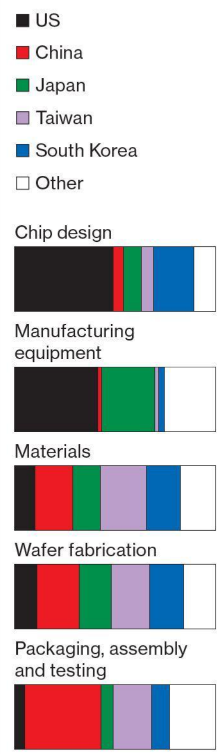
Congress has empowered Raimondo and her staff to create guardrails that will avoid a repeat of such incidents. "They have a lot of leeway to enforce it in a very strict way," says Michael McCaul, the Texas Republican who chairs the House Foreign Affairs Committee. Although McCaul calls Raimondo one of the most competent members of Biden's cabinet, he drops a warning: "They know that I'm operating in good faith, that I would prefer cooperation. They also know that if I have to, I'll subpoena them."

Raimondo waves off McCaul's threat. She says "it's politics, that's the way the game works," adding that she has a good relationship with him personally and they see eye to eye on their goal of protecting America's national security.

McCaul is among a group of GOP lawmakers who've sought to paint Raimondo as soft on China. At her 2021 confirmation hearing, Texas Senator Ted Cruz asked Raimondo if she'd commit to keeping Huawei Technologies Co., the Chinese telecommunications equipment giant, on an export blacklist. The sanctions on the company, imposed in 2019 by Trump, had bipartisan backing. Raimondo played it safe and said she'd consult with him and other senators before taking any action. Cruz called her response noncommittal and temporarily put a hold on her nomination. "That was bogus," Raimondo says of the episode. "That was political theater."

In an interview, Cruz says he has every reason to believe the Chips funds will be distributed on merit "and not based on rewarding the political friends and allies of the White House," but he vows he'll be vigorous in his oversight of her agency. ▶

▼ Semiconductor industry market share in 2021 by activity



◀ The scrutiny will only intensify as the 2024 elections approach. In January, the Republican-controlled House of Representatives created a select committee on US competition with China. Objectives include banning TikTok and limiting strategic US investments in China, and there's a good chance Raimondo and her team will be among its targets. "The worry is, the closer we get to next year's election, the more political theater it will become, and then that will not be very fun," she says.

While Raimondo has been in Washington for just two years, she seems at home in a city where people are constantly plotting their next move. This past fall, there was talk she was angling to replace Treasury Secretary Janet Yellen, who it had been rumored would be stepping down after the midterm elections. There's also been speculation that Raimondo would join Biden on the 2024 presidential ticket should Vice President Kamala Harris bow out.

Raimondo regularly bats down these rumors, along with chatter that she has her eye on the presidency, calling them "annoying." But when asked if she thinks she doesn't have what it takes to make it to the Oval Office, she shoots back, "I didn't say that," then adds: "I have a lot to do here. We'll take the future as it comes."

In interviews, her staff describe a boss who's driven and demanding. One speaks of the dread they experience when Raimondo gets on a plane, knowing there'll be a barrage of emails as soon as she's back online. But another aide also says Raimondo makes time to celebrate personal milestones, adding half-jokingly that she'll take offense if not asked to officiate at a staffer's wedding.

Businesspeople who've worked with Raimondo also paint a flattering portrait, saying she's attentive to private-sector concerns and eschews political ideology, traits that stand out in an administration that's allied itself more with organized labor groups than corporate America. "She knows business. She understands what companies have to deal with when dealing with bureaucracy, red tape," says Nancy McLernon, president and chief executive officer of the Global Business Alliance, who also serves on Raimondo's Investment Advisory Council.

In a keynote address delivered at the Massachusetts Institute of Technology in November, Raimondo laid out a vision of the future of the US-China economic relationship that pushed back on the notion that the White House is seeking a complete rupture. "We are not seeking the decoupling of our economy from that of China's," she said. "We want to promote trade and investment in areas that do not threaten our core economic and national security interests or human-rights values."

According to Commerce officials, the speech had been in the works for six months, spurred by the business community and countries around the world asking for clarity on the administration's China strategy. "It set the bar with respect to the importance of a trillion-dollar economic relationship," says Charles Freeman, senior vice president for Asia at the US Chamber of Commerce.

Next on Raimondo's agenda is how to deal with foreign apps that pose a risk to national security. While bipartisan support for banning TikTok is growing, she says, "passing a law to ban a single company is not the way to deal with this issue." Some of her concerns are high-minded: free speech. Others are practical: "The politician in me thinks you're gonna literally lose every voter under 35, forever," she says. "However much I hate TikTok—and I do, because I see the addiction in the bad s--- that it serves kids—you know, this is America."

Despite her assurances to the business community that it's possible to contain US-China tensions so they don't spill over into areas where no obvious national security issues are at stake, Raimondo has been coordinating with other government bodies on policies that could narrow the avenues for further integration between the two economies. Last summer, she reached out to Avril Haines, director of national intelligence, to discuss ways to flag investments by wealthy Chinese individuals in US startups—a type of transaction that isn't screened by the Committee on Foreign Investment in the US. "The more you know, the more worried you are about China," says Raimondo.

"Passing a law to ban a single company is not the way to deal with this issue"

Biden's face-to-face meeting with Chinese President Xi Jinping in November kindled hopes in some quarters that the relationship was on the mend—or at least wouldn't deteriorate further. But those hopes now seem misplaced. The observation balloon controversy caused Secretary of State Antony Blinken to call off a planned trip to Beijing in February. More recently, the Biden administration has warned Beijing against providing lethal aid to Russia for its war in Ukraine.

Raimondo says that what keeps her up at night is thinking about how China's economic and demographic challenges may be clouding the judgment of its top leaders. "People don't always make the best decisions when they're in a tough spot," she says. "Leaders react differently to tough times. China's having a tough time right now." —*Jenny Leonard and Eric Martin*

THE BOTTOM LINE Commerce Secretary Raimondo is trying to allay business concerns about a potential US-China decoupling at a time when tensions between the countries are running high.

What's Keeping Inflation Sticky

● Costs of moving goods by sea and by land aren't coming down as fast as might be expected

Supply chains around the world are mending almost as fast as they broke down. Even so, they'll continue to put upward pressure on inflation.

The cost of sending a shipping container from China to the West Coast of the US increased more than fifteenfold during the pandemic. It's returned to pre-Covid-19 levels as trade between the world's two largest economies cools from a frenzied pace. But the cost of sending a container from Europe to the US East Coast is still more than double what it was in late 2019, according to data from Freightos Ltd., a digital marketplace.

Those are spot market prices, which don't give a full picture, because 70% of goods transported in steel boxes are subject to long-term contracts. And many of those deals were negotiated in 2021 and 2022 when higher rates prevailed. It's not just ocean shipping. US road and rail freight rates have stayed high, because labor and equipment costs have risen. The upshot: Manufacturers and retailers may not be seeing enough of a drop in their costs of moving goods to motivate them to cut prices.

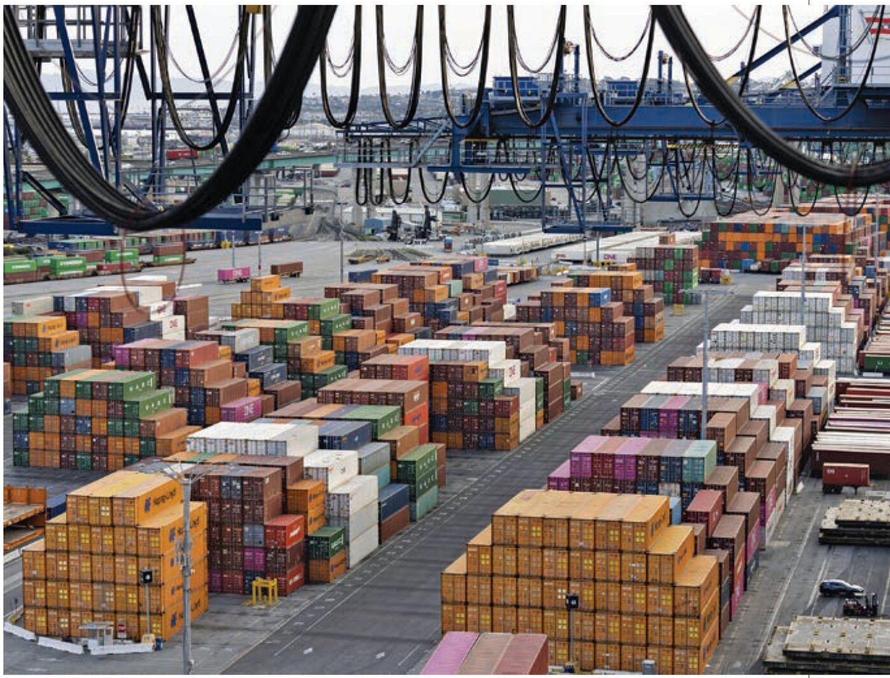
John David Rainey, Walmart Inc.'s chief financial officer, hinted at the dynamic in an earnings call on Feb. 21. "While the supply chain issues have largely abated, prices are still high, and there is considerable pressure on the consumer," he said.

That may help explain why inflation in many parts of the world remains stubbornly high. US producer prices rose in January by more than expected, and the Federal Reserve's preferred gauge of consumer costs also came in hotter than forecast. In the euro area, so-called core inflation, a measure that excludes volatile categories such as energy, food, alcohol and tobacco, reached a record in January.

Worker shortages are hitting the transportation and logistics industries hard, according to Nicholas Sly, vice president and economist at the Federal Reserve Bank of Kansas City. "There are several parts of the logistics sector that are actually quite labor-intensive," Sly says. "Drivers make up a very notable part of this." Warehousing also requires a lot of workers, he adds.

Experts say rising wages and prices for equipment, including new and used trucks, have kept US freight costs from moderating. "We may have seen ocean spot rates come back to their pre-Covid levels," says Jason Miller, an associate professor of supply chain management at Michigan State University. "We're not seeing that in domestic truck transportation. We're not seeing that in domestic rail freight prices."

▼ Shipping containers at the Port of Los Angeles

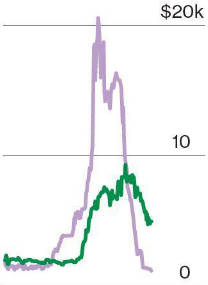


Companies are getting no relief on storage costs, either. WarehouseQuote expects warehouse-storage pricing to continue climbing this year, partly because vacancy rates remain below historical averages.

Even so, the easing of some supply chain strains means logistics issues are contributing less to inflation than at the height of the pandemic, according to Phil Levy, chief economist at Flexport Inc., a San Francisco company that specializes in supply chain management. "What we've had is something of a handoff, where it went from really quick-spiking goods inflation to a big drop in the amount that's coming from goods," Levy says. "It's not that every single component of the supply chain has moved in lockstep, but things have let up quite a bit." *—Laura Curtis*

THE BOTTOM LINE Despite a drop in spot rates for containerized shipping, many manufacturers and retailers aren't getting much relief from high logistics costs.

▼ Shipping cost for a 40-foot equivalent container, weekly



LAUREN JUSTICE/BLOOMBERG. DATA: FREIGHTOS

GET YOUR SHARE OF BONDS.

In today's rising rate environment, consider a different approach to help offset equity risk, preserve capital and seek income. Barbell your bonds by anchoring your portfolio with low cost iShares bond ETFs and allocating your fee budget to flexible and alternative active strategies.



Get your share of progress.

iShares.
by BlackRock

Visit www.iShares.com to view a prospectus, which includes investment objectives, risks, fees, expenses and other information that you should read and consider carefully before investing. Investing involves risk, including possible loss of principal. Fixed income risks include interest-rate and credit risk. Typically, when interest rates rise, there is a corresponding decline in bond values. Credit risk refers to the possibility that the bond issuer will not be able to make principal and interest payments. The strategies discussed are strictly for illustrative and educational purposes and are not a recommendation, offer or solicitation to buy or sell any securities or to adopt any investment strategy. There is no guarantee that any strategies discussed will be effective. Buying and selling shares of ETFs may result in brokerage commissions. Prepared by BlackRock Investments, LLC, member FINRA. ©2022 BlackRock, Inc. All rights reserved. **iSHARES** and **BLACKROCK** are trademarks of BlackRock, Inc., or its subsidiaries in the United States and elsewhere. All other marks are the property of their respective owners. iCRMH1122U/S-2595210

Equality

France's #MeToo Moment

An ad copywriter's Instagram feed has spurred French companies to finally move beyond the *Mad Men* era



Boistard's activism has spread to publishing, law, hospitality and other industries

After eight years in advertising, Anne Boistard was fed up with the toxic work culture. She had endured a boss who hung pictures of naked women in his office and would say "Is she on her period?" whenever an exhausted female employee broke down. Another boss read everyone's Slack and Facebook messages—he'd stolen their passwords—and forced interns to watch porn, trying to kiss one of them in a bathroom. Then there was the executive who kept telling his mostly female staff that their work was garbage, leading many to quit within weeks. "The ad world in France looked like *Mad Men*," Boistard says. "Powerful men who thought they were on top of the world, hitting on young female associates."

In the autumn of 2020, when she got an offer from an ad shop in Paris, Boistard decided to ask around to see if this one was any different. She launched an anonymous Instagram account called Balance Ton Agency ("Out Your Ad Agency") where she shared stories of abuse. Is there, she asked, anyplace female ad copywriters might feel comfortable? In two days, the account had 10,000 followers. A month later it had almost 30,000.

Boistard posted accusations of harassment at dozens of ad agencies and their clients on the Instagram feed before targeting companies in fashion, food and art. And men she called out—including the creative chief at a top company—started losing their jobs as employers investigated the claims. "We turned the power structure upside down," says Boistard, 35. "Managers and companies are now actually afraid of us, mere employees."

In much of the English-speaking world, #MeToo is old news, but in France it barely gained any traction. Although the country made sexual harassment a crime in 1992, one of the first to do so, enforcement of the law has lagged. After the movement erupted in the US in 2017, some French women started using the hashtag #BalanceTonPorc ("Out Your Pig"), but there was nothing like the reckoning provoked by the actions of Americans such as Hollywood producer Harvey Weinstein. Film star Catherine Deneuve even spoke out against the movement, defending sexual freedom, the importance of ▶

ADRIENNE SURPRENANT/BLOOMBERG

March 6, 2023

Edited by Rebecca Penty and David Rocks

Share of French women who say they have experienced the following at work:

Some form of sexism or sexual harassment **55%**	Inappropriate remarks about outfits or physiques **33%**
Whistling, inappropriate gestures or comments, sexual glances **40%**	Inappropriate touching **28%**

◀ flirting and the French notion of *galanterie*, or chivalry. And while President Emmanuel Macron pledged to make women's rights his "*grande cause*," activists say he's largely failed to deliver. "There's a culture in France of making light of harassment," says Natalie Leroy, an attorney who specializes in harassment law. "Men say: 'She's no fun. She should be glad someone put a hand on her butt.'"

Now France is finally having its #MeToo moment as more women call out infractions in the workplace, empowering others to denounce and sue aggressors. And more than 150 companies, including Air France, L'Oréal, LVMH and Société Générale, have signed a nonbinding public commitment to stamp out sexism in the workplace. Boistard's Instagram feed has grown to more than 300,000 followers and inspired similar accounts in publishing, law, consulting, hospitality and more. Through online testimonials, lawsuits and informal networks ranging from legal sessions to private WhatsApp groups, women have outed toxic managers and forced companies to acknowledge the problem.

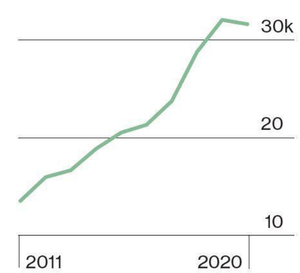
Video game maker Ubisoft Entertainment SA and its chief executive officer, Yves Guillemot, are facing a police probe of what two former employees and a union have called "institutional" sexual harassment. Law firms, meanwhile, have been on edge with a Boistard-inspired account supplying a steady stream of reports in the legal world and top arbitration attorney Jean-Georges Betto facing a trial this year on criminal charges of sexual harassment. Ubisoft, Guillemot and Betto declined to comment.

Facing the threat of litigation and reputational damage, companies are rushing to train managers to recognize sexual harassment. And larger employers are now required to hire office safety representatives to lend an ear to people facing abuse and report the harassers. Boistard illustrates "the new ways women can fight for their rights," says Laure Ignace, an attorney who's successfully represented victims in harassment lawsuits. "We're often told we should stop being social media vigilantes, but sometimes that's the only thing that works."

Before Boistard's Instagram account blew up, veteran staffers at ad agencies frequently felt the need to warn female interns about executives who'd touch them inappropriately or try to kiss them at company parties. An employee at Havas SA reported that her boss called her a "little whore" during meetings, then made light of it by saying it was "just a joke." Another recalled an executive who stopped talking when a woman walked by to ask, "Whose little ass is that?" Following reports on Boistard's account regarding more than a half-dozen Havas managers—including CEO Julien Carette—the agency put Carette on leave for three months, and creative boss Christophe Coffre was let go. Havas says that an internal investigation determined that the allegations against Carette were unfounded, but it has sanctioned other individuals and created a forum for employees to report any harassment. Coffre couldn't be reached for comment.

A landmark ruling in May indicates that the judiciary is starting to wake up to the problem. Sandra Muller, who introduced the #BalanceTonPorc hashtag, successfully fended off a defamation lawsuit by media consultant Eric Brion, whom she denounced in October 2017 on Twitter for sexual comments he made to her at a private event in Cannes. Brion had sought as much as €220,000 ($235,000) in damages and costs after Muller had lost previous litigation, but France's top court ended the case with a decision in her favor. "Beforehand, women's complaints were downplayed, and more often than not they would be forced to change teams or jobs," says Muller. "Now there's an immediate and strong reaction."

Reported sexual assault cases in France



French ad agencies have cited Boistard's account for inspiring them to reform their cultures. Les Gros Mots asked her for advice on restructuring its management, and in the end it offered employees equity in the company to give them more say in handling harassment claims. A manager at public-relations startup Spintank wrote on LinkedIn that Boistard's work had made him rethink his leadership style. And more than 400 advertising professionals signed an open letter in the fall of 2020 thanking the then-anonymous owner of the Instagram account for helping bring about change.

But Boistard's sudden rise to whistleblower fame has created its own problems. As her Instagram followers skyrocketed, the ad agency Braaxe incorrectly identified one of Boistard's former colleagues as the author of the feed

DATA: SURVEY OF 1,004 FRENCH WOMEN ON WORKPLACE SEXUAL HARASSMENT CONDUCTED BY THE JEAN-JAURÈS FOUNDATION AND THE FOUNDATION FOR EUROPEAN PROGRESSIVE STUDIES; EUROSTAT

and sued her for defamation. That forced Boistard to step forward as the account's owner in early 2021, spurring Braaxe to instead sue her and unleashing defamation lawsuits from three other companies. Boistard has won one of those cases, but she's still fighting Braaxe and two others. "The attacks were really difficult," she says. And she says she felt constant pressure to be available to others in need: "I'd fear that if I looked away from my phone for too long, a woman I was talking to would do something extreme."

Boistard says France has a long way to go. Of the three bosses who triggered her account, two still have their jobs. And although Macron has encouraged victims to speak up, she says, police rarely take them seriously. While reports of sexual assault in France have almost tripled in the past decade, the number of people imprisoned for those offenses has steadily declined, according to Eurostat.

Work culture remains a man's world. Some 90% of women who speak out against their bosses and take legal action end up losing their jobs, according to the Paris-based European Association Against Violence to Women at Work. A 2011 law mandated that at least 40% of board seats at France's largest companies be filled by women, and companies have largely complied. But in the six years after that, the share of women in top management decreased from 40% to 35%, according to the Organization for Economic Cooperation and Development. Employment judges in July ordered Crédit Agricole SA to pay a former executive €1.8 million after determining that his behavior was inappropriate (it included telling his female secretary, "I would love to spend the night with you") but didn't amount to sexual harassment. And in April a Paris labor court told BNP Paribas to pay a senior banker almost €300,000 after the bank had fired him in the wake of allegations he'd demanded sexual favors from a female colleague (the bank is appealing the ruling). "The French legal system was made by men, for men," says Marie Pezé, a psychologist and founder of a well-being-at-work website. "Social media testimonials finally let women talk about the difficulties they encounter at work and properly defend themselves." —*Alice Kantor and Gaspard Sebag*

THE BOTTOM LINE With 300,000-plus followers on Instagram, Boistard has inspired similar accounts where women out toxic managers, forcing companies to address sexual harassment.

Corporate Japan Takes a Pro-LGBTQ Stance

Companies embrace equality policies in a country where same-sex marriage is illegal



Sompo's Ima

PHOTOGRAPH BY SHIHO FUKADA FOR BLOOMBERG BUSINESSWEEK

Subaru Corp. has spent decades building a reputation as an LGBTQ-friendly company. In the 1990s it introduced ads in the US geared toward lesbians. And the company later won praise for its equality policies for employees, including offering domestic partner benefits to American employees in same-sex relationships more than a decade before the Supreme Court decision guaranteeing marriage equality in 2015. But the automaker's home market of Japan, which still doesn't allow same-sex marriage, remained a major gap in its approach—until last year.

Last April the maker of vehicles such as the Forester SUV revised its benefits policy in Japan to cover same-sex partners of employees. With that shift, Subaru—which declined to comment on how its policies affecting LGBTQ employees have evolved—joined a growing list of companies working harder to promote equality in the absence of government action. Blue chips such as Nintendo, Rakuten, Sony and Toyota offer benefits to same-sex partners of their employees in Japan, and there are large companies with pro-equality policies in almost every segment of the economy, from instant noodles maker Nissin Foods Holdings and convenience store operator FamilyMart to cigarette giant Japan Tobacco and insurance company Sompo Holdings.

Sompo's LGBTQ policies helped attract Masato Ima, who works in its Sompo Japan Insurance human capital department. Ima, who uses they/them pronouns, joined the company in 2019 after being warned by their previous employer, a subsidiary of a major bank, against coming ▶

◀ out as nonbinary. Sompo "allows a free expression of the self," Ima says. "We want employees to be able to fully utilize their abilities." Sompo has also made changes to tap into LGBTQ consumer demand, revising its auto insurance offerings to include same-sex partners in 2018 and its accident and fire insurance products in 2019.

By many other measures, Japan is still a laggard. The country is the only Group of Seven member without marriage equality, and the conservative national political establishment has shown little interest in changing the law. Courts have rejected challenges, including a November ruling in Tokyo that upheld the ban on same-sex marriage.

That's left the promotion of equality to businesses and local leaders less influenced by national politics. More than 350 companies and organizations support reversing the same-sex marriage ban, according to Business for Marriage Equality, a campaign backed by three nonprofits. Among them are IT services company Fujitsu, Tokyo-based tiremaker Bridgestone and Toto, a producer of toilets, sinks and bathroom accessories. Yamaha Corp., which makes pianos, guitars and other musical instruments, has had an equal benefits policy for employees and their partners since 2019 and endorsed marriage equality on Feb. 13. Bloomberg LP, the parent company of *Bloomberg Businessweek*, has also signed onto the campaign to end the ban. Some municipalities offer domestic partnership certificates that can help people in same-sex relationships gain access to certain local government services and apply for private-sector services, such as car or fire insurance and certain kinds of loans.

Unlike in Hong Kong, where foreign multinationals have supported equality while most large domestic companies have remained quiet, Japanese businesses have been moving to the forefront of public support for LGBTQ rights over the past decade. Sponsors for Tokyo's annual Pride march and festival include not only Nissan and SoftBank, but also Sysmex, a producer of health-care diagnostics equipment based in Kobe, and utility operator Jera, Japan's biggest power generator.

Still, there are limits to what even the most well-meaning employer can accomplish. In 2020, Honda Motor Corp. began offering equal benefits to its LGBTQ employees in Japan. But the company cannot alter government policies restricting access to social security, public life insurance or spousal exemptions from income tax. Same-sex couples also face bureaucratic nightmares when they try to buy property together or register as their children's legal parents. "Honda can't fix this situation on its own," says Risa Ikenoya, a spokesperson for the company's office of diversity and inclusion. "The company is doing what it can until there's a change in government policy."


Kenzo's Okochi

That won't come soon enough for Motoki Okochi, a gay man who's one of Japan's very few out C-suite executives as president of Kenzo Paris Japan, a unit of LVMH. In September, Okochi got married in France. His husband, who isn't Japanese, has a visa that's due to expire next year and can't get a spousal visa because Japan doesn't recognize the marriage as legitimate. The couple is considering leaving the country, Okochi says. "The Japanese government has to create a law to protect LGBTQI people," he says.

Optimists see potential over the long run. While lower-level courts have rejected challenges to the same-sex marriage ban, lawyers hope that appeals to Japan's Supreme Court will eventually lead to legalization, as happened in the US. Popular opinion is shifting: Almost two-thirds of Japanese support same-sex marriage, according to a Kyodo poll taken in February, after Prime Minister Fumio Kishida fired a close aide for discriminatory remarks about the LGBTQ community.

In the wake of the scandal, Kishida met with LGBTQ activists involved with organizations such as Work With Pride, an advocacy group that ranks companies for their equality policies. In 2022 the organization awarded more than 300 companies gold ratings, up from about 180 in 2020. Japanese lawmakers have also renewed debate over legislation to "promote understanding" of LGBTQ issues. But in a country where the ruling party has strong support among older voters, who are less supportive of LGBTQ rights than younger Japanese, some conservatives object to proposals to make the bill more powerful by including anti-discrimination provisions.

Even with political progress slow, corporate support for workplace equality can have a wider impact, says Kaoru Okabayashi, a human resources specialist in Tokyo. At a previous job, she was shunned by some co-workers after she came out as a lesbian. Now, Okabayashi feels supported at an employer with policies promoting equality. "What's important is the gesture, first of all, that the companies are willing to introduce new policies that are LGBTQ-friendly," she says. "Then you can, as an employee, at least see that they take this seriously and that they're trying to do something about it." —*Bruce Einhorn, Yuko Takeo and Nicholas Takahashi, with Yuki Furukawa*

THE BOTTOM LINE Equality advocates hope that as public support increases for equal rights for LGBTQ people, the political establishment in Japan will be forced to enact legal changes.

PHOTOGRAPH BY SHIHO FUKADA FOR BLOOMBERG BUSINESSWEEK

Child Care

Doing the Early Years Right

The quality and cost of early-years child care have important implications for a nation, from the size of its economy to the rate women participate in the workforce. We take a look at the nations that are getting it right. ——*Olivia Konotey-Ahulu*

Female workforce participation rate, 2021

Iceland	82.2%
New Zealand	77.5
Estonia	76.8
Canada	75.6
Germany	74.6
OECD average	64.8

Countries Leading the Way

● Iceland

Iceland is the top performer among Nordic nations, which all rank high for their child-care policies, and it's second only to Luxembourg among rich countries in a Unicef child-care ranking. (Given Luxembourg's small population, we're focusing on larger nations.) The report found that Iceland balanced affordability with high quality, in addition to generous leave policies for parents. Iceland is also seen to lead the way on women's rights more broadly. In 2022 it topped the World Economic Forum's index for gender equality for the

12th

year in a row.

● Estonia

Estonia has some of the most affordable child care and the highest proportion of young children with proficient reading and math skills among the world's rich countries. Every child from the age of 18 months to 7 years old is guaranteed a place at a child-care provider, costing parents a maximum of

20%

of the minimum wage, with support for low-income families. The high international standing of Estonia's education system hasn't yet translated into workplace gender equality: The Baltic state has one of the highest gender pay gaps in the OECD.

● Germany

Care for young children in Germany is known as *kita*, which includes nurseries and after-school care providers for kids in their primary years. All children of qualifying age are legally entitled to a place in a kita. In some parts of the country, parents pay based on their incomes, and in others, such as Berlin and Hamburg, kita services are **free** for everyone. Parents have described problems getting their children a spot in a kita, however. And the policies helping parents haven't necessarily improved workforce equality metrics, especially with regards to senior positions. In 2020, Germany had an 18.3% gender pay gap, one of the worst in the OECD.

● Canada

The Canadian federal government committed to tackle the high cost of early-years child care in 2021, pledging up to C$30 billion ($22 billion) to reduce per-child fees to an average of **C$10** a day by 2025-26. Canada wants to implement a national rollout inspired by a model in the province of Quebec, where subsidies to some providers allow them to offer care for just C$8.85 a day. While demand for places at popular nonprofit providers in Quebec outstrips availability, the system is broadly seen as successful. Since implementing the policies over two decades ago, the province's female labor force participation rate has overtaken the national average.

● New Zealand

It's ranked by Unicef as having some of the highest quality early-years education in the world. Progress toward gender equality is evident. In 2022 the nation ranked No. 1 on Pricewaterhouse-Coopers LLP's Women in Work Index. Not only has the gender pay gap shrunk to 5%, but female board representation is also one of the highest in the OECD, at around **42%**, according to PwC. The child-care system is, however, among the most expensive for parents in the OECD, despite some government-subsidized free hours of child care for 3- to 5-year-olds and other government help for lower-income parents.

DATA: ORGANIZATION FOR ECONOMIC COOPERATION AND DEVELOPMENT

The Fugee, the Fugitive and the FBI

How rapper Pras Michél got entangled in one of the century's great financial scandals

By Jason Leopold, Anthony Cormier and Matthew Campbell
Photograph by Marc Baptiste

1

The phone call awoke Pras Michél in the middle of a spring night in 2017. His "cousin from China" needed to meet, the woman on the line said. The caller was an ex-girlfriend who Michél, a rapper, producer and member of legendary hip-hop group the Fugees, hadn't spoken to in years. He grew up in a Haitian family in New Jersey and doesn't have a cousin from China, but he knew what the message meant.

Michél dressed and called a car to take him to the Four Seasons Hotel on 57th Street in Manhattan. The front desk clerk handed him a note. It instructed him to exit the hotel and circle the block twice, scanning to see if he was being tailed. Michél did as he was told and returned to the clerk, who gave him a room key. He went up to an empty suite and waited.

After about 25 minutes there was a knock on the door. An austere-looking Chinese security agent in a suit gave Michél a second room key and told him to go to the penthouse. Inside, another agent took Michél's phones and placed them in a pouch. A table and two chairs sat in the middle of the room.

"They can't kill me in the Four Seasons," Michél said to himself.

Soon a short, chubby man with wavy hair arrived, surrounded by more security personnel. Michél had met him before. He was Sun Lijun, China's vice minister of public security. Sun began shouting in Chinese. An interpreter translated for Michél: "Who the f--- do the US government think they are?"

Sun said he'd come to the US for sensitive negotiations with President Donald Trump's administration but had failed to secure a high-level meeting. For three years, Beijing had been targeting Chinese nationals living in America who it viewed as threats. Agents had surveilled emigrés, visited their houses and detained family members still in China, aiming to persuade the targets to return home, where some would be charged with serious crimes. Called "Operation Fox Hunt," the covert repatriation strategy had infuriated US officials.

Of particular concern to Sun was Guo Wengui, a real estate billionaire living on a temporary visa in New York. From his home overlooking Central Park, Guo had enraged the Chinese government by making a series of scandalous claims to the media, purporting to reveal the assets of top Communist Party officials. China was prepared to release two American citizens—one of them pregnant—being kept in the country under a so-called exit ban if the US deported Guo.

Behind the scenes, the US government had been agitating for their return. But when Sun and his entourage arrived ▶



◀ in Washington, hoping to make a deal, Attorney General Jeff Sessions was traveling and unable to meet with them, according to an email Sessions wrote in May 2017. Unsure what to do next, Sun sought Michél's help. (The Department of Justice declined to comment.)

"This is way above my pay grade," Michél said after Sun laid out the situation. "But if I were you, I would at least send the pregnant woman back as a token of good faith."

"You think so?" Sun asked, now calmer and speaking in English. An agent handed Sun a telephone. After a brief conversation, he turned again to Michél. "When do you want her back?"

Michél, who'd won two Grammys with the Fugees before going on to a solo career, was unsure about the usual time frame for international hostage repatriations. "Tomorrow?" he asked.

"The weekend is no good."

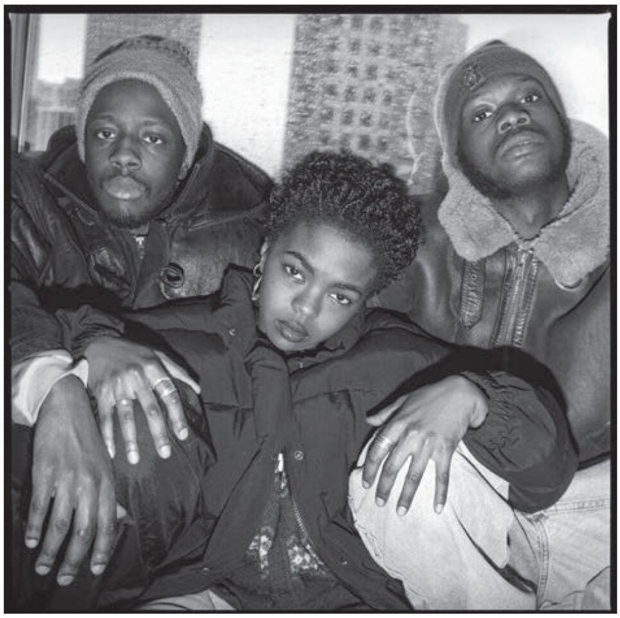
"Monday? Tuesday?"

By Tuesday the woman was back in the US.

About two months later an FBI special agent interrupted Michél at brunch near his apartment in SoHo. The agent had 12 photos of Chinese officials and many questions: Who did Michél meet at the Four Seasons? Who else had contacted him from the Chinese government? And of course: How had a famous rapper and record producer found himself in the middle of a high-stakes negotiation between global superpowers?

Michél's audience with a top Chinese security official, reported here for the first time, was a flashpoint in one of the most unusual political influence campaigns in recent memory. His involvement began by chance, around 2006, when he met a baby-faced Malaysian businessman named Jho Low. Low was a globe-trotting financier whose lavish spending would put him on familiar terms with dozens of A-list entertainers. But by 2016, US investigators believed he'd masterminded the embezzlement of billions of dollars from the Malaysian sovereign wealth fund 1MDB, blowing much of it on artwork, real estate and gifts for celebrity friends including Leonardo DiCaprio and Kim Kardashian. Few were as close to Low as Michél: Prosecutors seized $95 million that they alleged originated with Low from Michél's accounts.

With US authorities closing in and moving to confiscate his assets, Low needed help. He turned first to Michél, hoping to cash in on the star's connections to President Barack Obama, for whom Michél had raised money during the 2012 campaign. Next, Low turned to China, one of the few countries that could protect him from the long reach of American law enforcement. (Low didn't reply to requests for comment. China's Ministry of Foreign Affairs said in a statement that it was "unaware" of the events described in this story. Sun, who received a suspended death sentence for corruption offenses last year, couldn't be reached.)



The Fugees—Wyclef Jean, Lauryn Hill and Pras Michél—in New York in 1994

To investigate this wild tale of celebrity and political intrigue, *Bloomberg Businessweek* drew on legal filings, interviews with people close to the case and a cache of previously undisclosed FBI and Justice Department documents. The records show how Michél, at Low's request, helped assemble a team of Republican influencers—including fundraiser Elliott Broidy, businesswoman Nickie Lum Davis and casino magnate Steve Wynn—capable of reaching the highest levels of the Trump administration as it took hold of the US government. Soon, all would be targeted by agents from the FBI's international corruption division as well as federal prosecutors from Honolulu to New York.

The US didn't catch Low, but it did squeeze his associates. Many agreed to cooperate and pursue plea deals with prosecutors. Michél declined, and the consequences for him could be dire. Federal prosecutors charged him in 2021 with 10 offenses stemming from his dealings with Low, ranging from conspiracy to witness tampering and acting as an unregistered agent of a foreign government.

Michél maintains his innocence and has decided to fight the charges. "The common thread that runs through this is that Pras was trying to get the benefits for the United States that were being offered by Minister Sun," says his attorney, David Kenner. "Pras's motivation was to try to assist the United States." Kenner adds that Michél's relationship with Low was rooted in a desire to secure investment for entertainment projects.

The trial is scheduled to begin in Washington in late March. If convicted, Michél could go to federal prison for decades.

2

All Michél knew about Low, the Malaysian guy he'd been asked to meet in 2006, was that he was loaded and liked to hang out with celebrities. The venue was a nightclub in Manhattan's Meatpacking District. A couple of other patrons that night, Wall Street types, paid the club for a chance to get on the microphone. They announced that they were the richest people in the room and planned to buy everyone a drink. Not to be outdone, Low paid even more to use the mic and said he'd be buying every bottle the nightclub had on hand—and that staff should go to the club across the street so he could buy their bottles, too.

FUGEES: DAVID CORIO

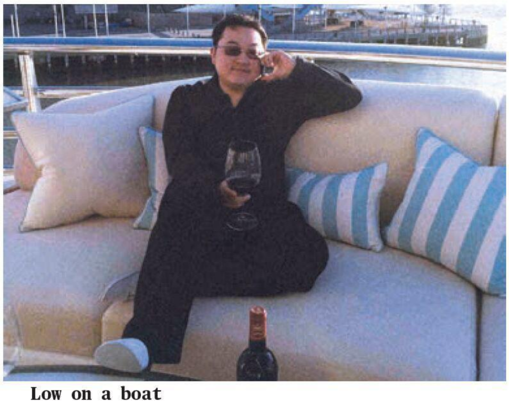
Later, around 2011, Michél and Low became close friends. He was just one of many celebrities Low cozied up to during a whirlwind of yacht vacations, club nights and gambling, lubricated by his vast financial resources. Kardashian would later tell the FBI she'd bought a Ferrari using $305,000 Low gave her in cash. The supermodel Miranda Kerr, whom Low briefly dated, received about $8 million in jewelry. Low was especially generous with DiCaprio, donating a $3.2 million Picasso and a $9.2 million Basquiat to his charity. He also financed *The Wolf of Wall Street*, a film DiCaprio had been trying to develop for years. (DiCaprio and Kerr later turned over items they'd received from Low to the US government.)

In Michél, Low had found a friend who was no less than music royalty. Born Prakazrel Michél, he'd been raised in a strict home in New Jersey, telling an interviewer in 2007 that his parents forbade him from watching TV or even wearing sneakers. He met his future collaborator Lauryn Hill in high school, later forming the group that became the Fugees with one of his friends, Wyclef Jean. Their second album, *The Score*, was one of the most influential records of the 1990s, a double Grammy winner that sold more than 18 million copies.

The Fugees disbanded not long after releasing *The Score*, and apart from one hit, *Ghetto Supastar (That Is What You Are)*, Michél's solo career never took off. But he continued to earn money from the band's songs and maintained a lavish lifestyle, including a $30,000-a-month New York apartment. His tastes tended toward the flashy: Patek Philippe watches and a Lamborghini SUV, which he showed off on social media. According to email records, Michél's financial adviser periodically admonished him for spending beyond his means, complaining at one point that he'd gone $250,000 over budget in a two-month period alone. His lawyer, Kenner, says Michél's financial situation wasn't strained, however. "Some have advanced the notion that Pras was hurting for money and that might [show] a motive to become involved in those matters that led to this indictment," he says. "Nothing could be further from the truth."

Michél was different from the other celebrities in Low's coterie. He saw himself as something more than a rapper and producer, and he'd become what Kenner calls a connector—a man with a thick Rolodex of friends in politics, entertainment and finance. Beyond music, Michél took on a range of projects, often focused on social-justice or political issues: spending nine days on Skid Row in Los Angeles for a documentary and serving as an adviser to Michel Martelly, the performer who became Haiti's president in 2011.

Closer to home, Michél was a passionate supporter of President Obama. Government documents show that he wanted to become a more serious player, even mentioning a desire to be considered for an ambassadorship. (Kenner says Michél quickly dropped the idea "once he was told that he would have to live in the country where he was an ambassador.") Michél bankrolled a political action committee called Black Men Vote PAC and, in the runup to the 2012 US election, told a Democratic official in an email that he was "thinking about doing a fundraiser…looking to raise anywhere from 5-10 million." A mutual friend forwarded the email to Low and told him—erroneously—that "being a foreigner is not a problem." (In fact, foreign nationals are prohibited from donating to US campaigns, including via PACs.)


Low on a boat

Low wanted in. Federal prosecutors say he sidestepped the law by sending more than $21 million to Michél, who then used his own accounts and various "straw donors" to contribute about $2 million to Obama's reelection effort. It's not clear what happened to the rest. (Kenner says Michél depended on a lawyer and advisers to manage his financial activities.)

Low was preoccupied with projecting an image of success, and after Obama won, he received some of what he craved. Another Democratic donor, tech executive Frank White Jr., told the FBI that in late 2012 he brought Low to a holiday party at the White House, where Low posed for a photo with the president and first lady. (A representative for the Obamas declined to comment.) But if Low thought his donations would buy him political cover in Washington, he was mistaken. In 2015, as press reports about the graft at 1MDB multiplied, the FBI and the DOJ opened an investigation, led by Robert Heuchling, a special agent with the bureau's international corruption unit in New York. According to a later FBI memo, the lines of inquiry included investigating the theft of embezzled funds and their laundering into the US, as well as potential violations of banking rules and anti-bribery laws by Low's network of enablers. Agents soon identified Michél as a Low ally—and a potential cooperating witness.

About a year after the investigation was opened, federal prosecutors in California filed a sprawling forfeiture action, seeking to seize more than $1 billion in assets that Low and his associates had accumulated. The filings spoke to the lifestyle of astonishing glitz they'd built since 1MDB's establishment in 2009: in New York, a penthouse in the Time Warner Center and luxury condos in Chelsea and SoHo; in Los Angeles, a boutique hotel and multiple mansions; a Bombardier Global 5000 jet. The rights to *The Wolf of Wall Street* were also the subject of a seizure complaint.

In the summer of 2016, Michél was in St-Tropez, on France's sun-soaked Côte d'Azur, when he ran into Low's brother, Szen. Szen asked Michél to speak to Low, who explained his issues with the DOJ and dismissed the US allegations as "all lies." Low complained that his legal team was moving too slowly to resolve the cases. He wondered if Michél had ideas about who could help. ▶

3

After the Democrats' defeat in the 2016 election, halting a case as large as the one against Low required pull with the freshly installed Trump administration. Michél didn't have any, but he knew someone who might.

In early 2017 he spoke with an old friend, Nickie Lum Davis. A TV producer who split her time between Los Angeles and Hawaii, Lum Davis had an unusual political pedigree. Her parents, Eugene and Nora Lum, had been major fundraisers for Bill Clinton and had eventually pleaded guilty to arranging illegal donations. Lum Davis's own connections were weighted toward Republicans. She'd converted to Judaism after meeting her now ex-husband, Jdate co-founder Joe Shapira, and become hawkishly pro-Israel. On the coffee table at their home in Beverly Hills, the couple kept busts of Rudy Giuliani and George W. Bush.

Lum Davis suggested a name: Elliott Broidy, one of Southern California's most prolific Republican fundraisers. Michél asked her to send supporting materials he could relay to Low, including photos of Broidy with Trump, as well as a brief bio and notes about his connections to the president. "Has long standing relationship with Sec of Justice Dept - Jeff Sessions that goes back 15 years," the material read. Broidy was also "One of two people who are close to the boss that were instrumental in boss getting there - that did not take a job in the administration." (A representative for Broidy declined to comment; Lum Davis didn't respond to a detailed request for comment.)

Early one morning in mid-March, Michél, Lum Davis and Broidy met at Broidy's Los Angeles office to hammer out a potential deal to work for Low. According to a later FBI interview summary, Michél told the others that Low was "not a bad guy," but rather a smart businessman who simply wanted to deal with his legal issues. Securing Broidy's help would be expensive. A draft agreement the group prepared called for Low to pay a retainer of $8 million. If the team succeeded in resolving the DOJ's forfeiture actions within six months, he'd pay a $75 million success fee; if it took six months to a year, the amount would drop to $50 million. (Kenner says Michél mistakenly thought Broidy was a lawyer and wanted him to represent Low—"not to influence government policy," as the US government later asserted.)

To ensure he received what he felt was fair, Michél insisted that the money, and all communications with Low and his associates, go through him. He, in turn, would deal with Lum Davis, who would pass on information to Broidy. He was "concerned about being cut out," Lum Davis would later say. About a week after the meeting, a financial adviser set up two Delaware companies on Michél's behalf, Anicorn LLC and Artemus Group LLC. By the end of the month, both companies had accounts at Los Angeles-based City National Bank.

The next step was to meet with Low, who was for obvious reasons avoiding the US. He proposed they gather in Thailand. Broidy told Lum Davis he'd need $1 million to get on the plane, from "untainted" funds. Reluctantly, Michél fronted it himself. The group landed in Bangkok at the beginning of May. A few hours after they arrived at their hotel, Low showed up at Lum Davis's suite.

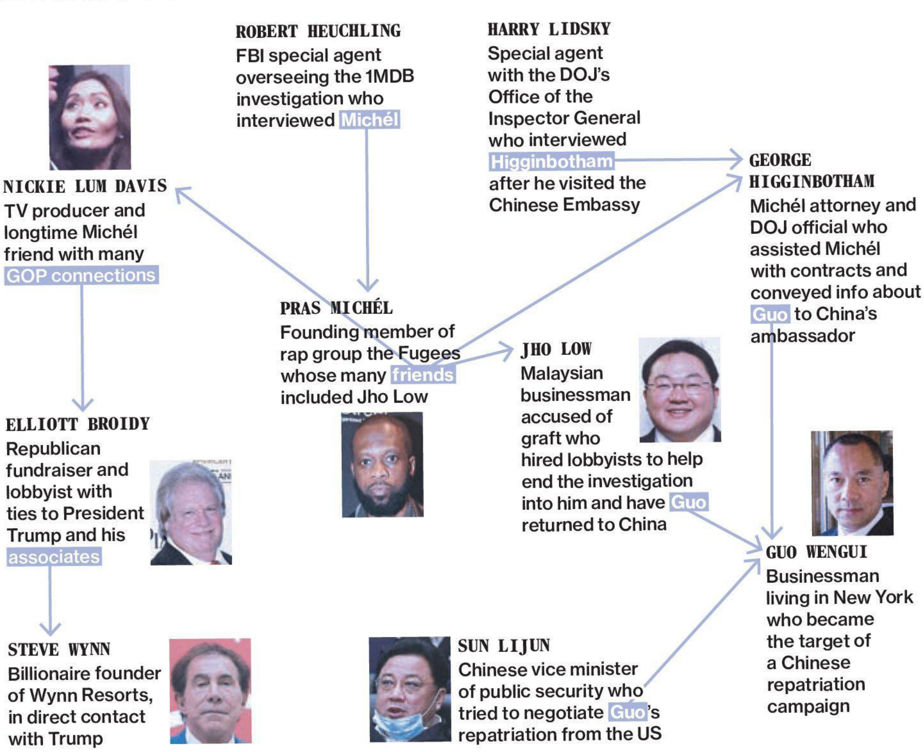
According to court filings and grand jury testimony, Broidy told the group he believed he could use his ties to Sessions, Trump's attorney general, to persuade the US government to drop its pursuit of 1MDB-related assets. But before any of that, there was the matter of money. "You've had so many of your assets forfeited, so how are you going to pay?" Broidy asked.

Low told his visitors not to worry. "I have a friend who's helping me to pay for my bills," he said. The financier didn't identify the generous friend.

Before the meeting ended, Michél raised another matter, one that revealed another interested party: the Chinese government. He told Broidy and Lum Davis that Low was interested in Guo, the businessman living in New York, who was making increasingly bold claims about corruption among high-ranking Chinese leaders.

China had issued a notice seeking his arrest through Interpol weeks earlier, claiming Guo was wanted for bribery. It wasn't clear why Low would care about

Dramatis Personae



BROIDY: BILLY BENNIGHT/ZUMA PRESS. MICHEL: JOHNNY NUNEZ/WIREIMAGE/GETTY IMAGES. LOW: STUART RAMSON/AP PHOTO. GUO: NATALIE KEYSSAR. WYNN: BRENT LEWIN/BLOOMBERG. LIJUN: CHINATOPIX/AP PHOTO

“When someone sends you a large sum of money and then wants to see you, you have to go to them”

Guo’s status, but he had reasons to seek favor from Beijing. According to the *Wall Street Journal*, China in 2016 had offered to bail out 1MDB, which owed billions more than it could repay. And with US criminal charges a possibility, being useful to the Chinese government might provide Low a measure of protection.

As the Bangkok meeting drew to a close, Low said that he was willing to move forward with the Americans and that information on payment would follow. He was leaving town, and Lum Davis, Broidy and Michél returned to their rooms to book flights home. They had work to do in Washington.

4

Within days of the Bangkok meeting, Low started to demonstrate that he could pay. On May 8, 2017, $2.8 million landed in an account belonging to Anicorn, one of the companies Michél had incorporated. An additional $3 million arrived less than 10 days later. The wires originated with a Hong Kong corporation called Lucky Mark (HK) Trading Ltd. Although it had no obvious connection to Low, US prosecutors allege that he used the company to move money.

As the payments came in, Low told Michél he wanted the group to meet again, in Hong Kong. They agreed. “When someone sends you a large sum of money and then wants to see you, you have to go to them,” Lum Davis would later tell the FBI. As Michél, Lum Davis and Broidy arrived, the rapper received word that their appointment had been moved to the mainland, just across the border in Shenzhen. Soon Lum Davis, Broidy and Michél were sitting in another hotel suite with Low. There was someone he wanted his visitors to see. They walked to a different room, where Sun—the Chinese security official whom Michél would later meet in New York—was waiting with his entourage, all of them smoking. After some pleasantries, Sun began talking through an interpreter about Guo and what China was willing to do if the US facilitated his return.

As a first step, Sun said, the government would release Americans it was holding and take back Chinese nationals convicted of crimes in the US whose deportations it had previously refused to accept. It would also consider new cooperation on cybersecurity issues. It sounded like an attractive trade. “Maybe you’re just not getting the message to the right person,” Broidy suggested, according to court filings. He said he could help arrange a meeting between Sun and Sessions, to “try to get your message through, that you really want this fugitive returned to China and what you guys are willing to offer.”

The three Americans went to Broidy’s room with Low and ordered lunch. Before leaving, Michél pulled out a USB drive and uploaded a file onto Lum Davis’s computer, asking her to pass its contents to Broidy. It listed the purported legal allegations against Guo—including wire fraud, money laundering and even kidnapping. (Guo has denied wrongdoing; he didn’t reply to requests for comment.)

Soon after, Broidy sent an email to Rick Gates, who’d been a top figure on Trump’s campaign. He attached a memo addressed to Sessions, as well as the Interpol arrest notice for Guo. Broidy didn’t mention Low in the document, saying only that he’d been “asked by my Malaysian business contacts” to meet with Sun. (Sessions later told prosecutors he didn’t recall seeing it; he didn’t reply to a request for comment.) After listing steps the Chinese official had offered to take to “improve law enforcement relations,” Broidy got to the ask: “The one request China will make is that Chinese national, Guo Wen Gui,” be deported or extradited, “so he can be charged with these violations and go through regular criminal proceedings.”

5

Less than a week after the Shenzhen discussion, Sun was in Washington trying to secure an agreement from Sessions that Guo would be removed. When Sessions couldn’t meet with him, prompting Michél’s late-night summons to the Four Seasons in New York, Sun took the rapper’s advice and authorized the release of the pregnant woman China was blocking from leaving.

The woman’s mother was a target of Operation Fox Hunt, Beijing’s pressure campaign against expatriates. She was described in a DOJ filing as an American citizen who previously worked at a Chinese state-owned enterprise and was accused by the government of embezzlement. Her daughter had traveled to China to visit relatives in 2016; officials were keeping the daughter there under the exit ban until she persuaded her mother to return.

Within a few days of Michél’s intervention, the pregnant woman was on a flight to John F. Kennedy International Airport. Yet the Trump administration didn’t budge on Guo. Michél wanted to gather information for Low on the reasons for the government’s resistance,



Michél and Low’s father flanking Obama at a fundraiser in 2012

official documents show, and in late June he made a bold gambit: He contacted the FBI directly and asked for a meeting. Agents soon came to see him at a restaurant in Manhattan.

Michél told the agents he’d been working with a friend named “Jon”—a thinly veiled reference to Low—to help China get Guo back. According to an FBI summary of the conversation, he “probed the interviewing agents,” trying to understand whether Guo had some relationship with the bureau that would explain the government’s reluctance to deport him. Although they assured Michél that the FBI didn’t have any arrangement with Guo, he “did not believe the ▶

◀ interviewing agents and repeatedly asked if the FBI was meeting" with the businessman. When the agents asked Michél why Chinese officials would be interested in his assistance, he said, "They believe that I can provide intelligence." He also noted that he'd be reporting back to "Jon" on the discussion and said he'd be interested in keeping in touch about Guo.

It often takes years of painstaking work for FBI agents to identify people collaborating with foreign governments. But Michél had come to them, happy even to identify some of his contacts abroad. He spoke to the FBI a second time in July, when Heuchling, the agent overseeing the sprawling probe into 1MDB corruption, turned up unannounced during Michél's SoHo brunch. Looking at photos from the FBI, Michél identified Sun as the minister he'd met at the Four Seasons and pointed out Sun's security guard. (Kenner says Michél thought he was "operating in the best interest of the US" by providing assistance to the FBI and hoped the US could benefit from increased cooperation from China.)

In Washington, Broidy and Lum Davis were continuing to work their Trump administration contacts, stressing that China was willing to release more Americans in return for Guo. With Guo's visa soon to expire, Broidy also reached out to Steve Wynn—a major Republican donor who'd founded Wynn Resorts Ltd., which operates large casinos in the Chinese territory of Macau—to ask for help. It "is critically [*sic*] that his new visa application he [*sic*] immediately denied," Broidy texted. Wynn took the matter directly to Trump, bringing up the case at a White House dinner with the president and dropping off a copy of Guo's passport with Trump's secretary. Wynn relayed an update to Broidy: "This is with the highest levels of the state department and defense department. They are working on this."

To Lum Davis, it appeared victory was imminent. "You are the man right now," she texted Broidy. "They are going to give you the President's medal of freedom award after what you will accomplish for this [*sic*]the country."

Broidy was determined to finish the job. "I am going to slam until it's done," he texted back.

6

On a Saturday in mid-July 2017, Michél called another old friend. A lawyer by training, George Higginbotham had helped Michél with dozens of legal matters over the years; he'd later describe his work for the rapper as ensuring nothing got "f---ed up." Even after Higginbotham took a job at the Department of Justice, in an office responsible for liaising with members of Congress, internal government documents show he continued doing work for Michél, including some related to Low. Higginbotham helped move Low's payments into US banks and edited contracts to ensure there were no references to Low or to companies that could be traced to him.

This time, Michél had an especially unusual request. He wanted Higginbotham to go to China's Embassy the next day, a Sunday, and meet with the ambassador. Higginbotham asked why Michél couldn't go himself. "George, you're an attorney," Michél responded. "You're more well-spoken than I am. He'll have more respect for you."

Higginbotham, a veteran bureaucrat, knew meetings between the US and foreign powers were tightly choreographed. A DOJ staffer showing up at a Chinese compound in Washington could trigger alarms among America's spy hunters. Higginbotham asked Michél if they could hold the discussion at a different venue—a restaurant, a coffee shop, anywhere but the sovereign diplomatic territory of America's main strategic rival. Michél said no—it had to be at the embassy.

Michél came to Washington to help Higginbotham prepare. They met at the Four Seasons in Georgetown on Sunday morning. Legal documents indicate Michél wanted to show Low that his American representatives were advancing his priorities, even if that wasn't necessarily true. He told Higginbotham to deliver a straightforward message to the Chinese: The White House was working on a solution for the Guo matter, and details on the logistics of extradition ▶

Leo, Low and the Law



DiCaprio and Low with a Basquiat that was later turned over to the government

Leonardo DiCaprio was struggling to remember some of the details about his relationship with Jho Low.

In an office on Sunset Boulevard back in April 2018, an FBI special agent, an IRS investigator and three Department of Justice prosecutors started off their interrogation of the movie star with gentle questions, according to an FBI summary of the interview. They spoke about his acting career, his charity work and his production company, Appian Way.

Soon the interview turned to Low, whom DiCaprio had met in 2010. Low had lavished the actor with gifts, partying with him across the globe and financing his 2013 movie *The Wolf of Wall Street*. DiCaprio recounted to the agents that the relationship began in a nightclub. He'd been told that Low's money came from an unknown "whale of whales" in Abu Dhabi, he said, and that Low was the "Mozart of the business world." Only later, around 2015, did federal investigators target Low in a multibillion-dollar embezzlement probe.

As an FBI agent presented DiCaprio with emails and documents, the actor's memory became less clear. He didn't remember discussing one of Low's companies with him, even though DiCaprio had once described Low in an email to a potential investor as "my friend" and the "CEO" of that same company. When he looked at another email, DiCaprio told the agents it didn't look like "something he would

write”—he thought he “might have cut-and-pasted it.” DiCaprio was sure his managers had vetted Low before working with him on *The Wolf of Wall Street*, but he didn’t recall what the background check had found.

That Low liked to party with actors, record producers and models is no secret, nor are the paintings, supercars and cash he gifted them. But previously undisclosed FBI documents reviewed by *Bloomberg Businessweek* offer a deeper accounting of those deals and show how federal agents squeezed celebrities and their handlers for information about Low.

Kim Kardashian, for instance, told the FBI in February 2019 how she’d met Low and partied with him in Las Vegas. He’d given her fiancé at the time, NBA journeyman Kris Humphries, $100,000 for fireworks at their 2011 wedding. Years later he offered her a work by Basquiat, prompting her then husband, Kanye West, to ask for a Monet—“to mess with Low because both Kardashian and West found Low to be very fickle when giving gifts and never expected to actually receive a painting,” the agents wrote. (A representative for DiCaprio declined to comment. Representatives for Kardashian, Humphries and West didn’t respond to detailed messages seeking comment.)

One celebrity drew more attention from investigators than the others: DiCaprio, whose relationship with Low extended far beyond parties and largesse. Agents collected thousands of BlackBerry messages and emails between the two and their associates. They built a spreadsheet of all the gifts Low had given to DiCaprio across five years and the $6 million he pledged to his charity. They reviewed photos of the two wearing tuxedos at an event, signing paperwork and standing in front of a Basquiat Low donated to DiCaprio’s charity.

What emerged from the FBI’s investigation was a picture of how close the men became. The movie star introduced Low as “my man,” and the investor called DiCaprio “Ldogg.” Their mothers had met. DiCaprio connected Low with his friends in the art world, technology and real estate. And the pair traded ideas about a megafund of $1 billion for more films, a Warner Bros. theme park in Asia with rides based on DiCaprio movies and the development of an eco-friendly resort in Belize. “I was working for him,” DiCaprio later told a grand jury, “and that business also translates into being social. And so we saw each other more, and there was more interaction.”

Often in the middle of those interactions was Rick Yorn, DiCaprio’s manager. A powerful figure in Hollywood, Yorn represents a roster of A-listers including Jennifer Lawrence and Justin Timberlake. (They haven’t been connected to the Low affair. A representative for Yorn declined to comment for this story.) For his biggest client, Yorn dreamed of a transformative deal and saw Low’s billions as a way to unlock it.

“Need to talk about what I think is the ‘cracking of the code’ structure/deal for you,” Yorn wrote to DiCaprio in December 2013. “Been working on it quietly with a few people and I need to take you through it. Could be a game changer. I’m hesitant to tell Jho about it now but I think I might give him a taste.” It’s unclear what kind of arrangement Yorn envisioned, or whether it was ever set in motion, but he later wrote back to DiCaprio: “I took Jho through it. He gets it big time.”

Yorn became a hands-on negotiator and peacemaker, working directly with Low. At one juncture, Low groused about *Wolf*’s budget to Yorn, telling him to “work your magic” and persuade director Martin Scorsese to cut costs. At another point, when the deal seemed on the brink of falling apart, Yorn wrote to Low’s team: “I wish it could cost less. It’s not for lack of trying and the [$95 million budget] just can’t be done. I wish it could. We will be close.”

The emails show Yorn saw Low as a potential partner in future deals. He told DiCaprio he “would love to get Jho and the boys” to invest in a Cameron Diaz picture and credited Low with inspiring a $30 million cash offer from co-producer Riza Aziz for DiCaprio to star in two other films, *The Brigands of Rattleborge* and *Papillon*. None of those deals worked out. (Aziz didn’t respond to a message requesting comment.)

DiCaprio told the FBI he wasn’t exactly sure where Low’s wealth came from. He said it was the responsibility of Yorn and DiCaprio’s entertainment lawyer to look into him. DiCaprio said that his publicist, Shawn Sachs, had hired someone to conduct a background check on Low but that he didn’t “thoroughly read” it. “Usually, DiCaprio relies on his reps to read the reports and give him an okay to continue to work with someone. In this case, his reps gave him the green light to continue to work with Low,” FBI agents wrote.

During the interview, they pressed DiCaprio on when he became aware of the growing suspicions surrounding Low. “DiCaprio lives in a world of rumors,” they recounted, “so he did not take any of them seriously until the main negative news stories about Low came out and his team told him it was now serious.”

And as news stories began to emerge about Low and 1MDB in 2015, something else had fractured the relationship. DiCaprio was planning a fundraiser in St-Tropez for his foundation. Low promised to donate a piece by the artist Roy Lichtenstein. As the deadline drew near, the piece still hadn’t shown up. Low promised it would be there, but it never arrived. DiCaprio had to pull it from the auction. “DiCaprio started to distance himself from Low after this,” the agents wrote. “He was embarrassed.”

Prosecutors filed a sprawling forfeiture action against Low’s assets in July 2016, seeking to seize real estate, artwork and the rights to *The Wolf of Wall Street*. About a year later, DiCaprio’s attorneys met with federal agents to hand over some of the gifts the actor had received, including a first edition of *The Great Gatsby* and the Oscar statuette Marlon Brando won for *On the Waterfront*.

During a meeting with prosecutors and FBI agents, DiCaprio’s attorneys asked the DOJ to “take all steps possible to minimize DiCaprio’s connection to any upcoming forfeiture complaints the government may file.” They also drafted a press release and asked that prosecutors put it out to “thank Mr. DiCaprio for providing substantial assistance.” The government declined the request.

“If Pras comes around,” Heuchling texted, “he’s going to realize he has a lot of time to work off”

◀ would follow. It was a simple job, Michél assured Higginbotham.

That afternoon, Higginbotham walked to the Chinese Embassy off Connecticut Avenue. Michél had given him a number for one of the ambassador’s aides, and Higginbotham called as he approached, asking for directions to the entrance. He was escorted into a conference room decorated with pictures of Chinese leaders meeting US presidents.

The ambassador, Cui Tiankai, entered after a short wait. “I’m here on behalf of my private client,” Higginbotham told Cui. “This has nothing to do with the Department of Justice, and I am here in absolutely no official capacity.” After Higginbotham relayed the information instructed by Michél, Cui peppered him with questions: When would the deportation happen? Who would be getting in touch to make the arrangements? But Higginbotham had nothing more to tell him. Still, the ambassador seemed appreciative, and Michél later told Higginbotham Low was pleased with how the meeting had gone.

Higginbotham didn’t know he’d triggered a diplomatic tripwire before setting foot inside the compound—the previous night, police officials from the Chinese Embassy had called their American counterparts to verify his identity. The matter soon landed with the DOJ’s Office of the Inspector General, the agency’s internal watchdog. Upon being summoned, Higginbotham explained that he’d gone to the embassy on Michél’s instructions.

Higginbotham had just become another piece in a growing set of US investigations into Low’s and China’s activities. By now, American officials were looking into Lum Davis and Broidy, too, as the pair continued working to get the DOJ to back away from Low and dislodge Guo from the US.

Wynn’s involvement was also increasing. With Lum Davis as facilitator, he spoke by phone with Sun at least eight times, beginning in June 2017. During the same period, according to legal filings and internal government documents, Wynn spoke about the Guo case with US officials including White House Chief of Staff Reince Priebus and his successor, John Kelly. And that August, while yachting with Broidy and his wife off the coast of Italy, Wynn called Trump and asked about the status of Guo’s potential extradition. Trump replied that he’d be happy to “have them”—Sun and his team—“come to see us at the White House” to discuss the issue. (Lawyers for Wynn said his role was as a “messenger conveying information,” rather than a lobbyist. In October a federal judge dismissed a DOJ suit that sought to compel him to register retroactively under the Foreign Agents Registration Act, which requires anyone lobbying for a foreign client to notify the government. Wynn didn’t respond to a request for comment.)



Guo in Manhattan in 2017

Soon afterward, according to a DOJ interview with Kelly last year, a Chinese delegation showed up at the White House, claiming they’d been told Trump had agreed to a meeting about Guo’s extradition. Kelly recalled that he blocked them from seeing the president, directing his staff to connect the group with the DOJ and the Department of State, which ultimately denied the request. He said the Chinese seemed stunned, because they were under the impression that the meeting was a “done deal.” (Trump and Kelly didn’t respond to requests for comment.)

Even with little progress being made toward Low’s goals, he was encouraged enough that large sums of money kept coming into the US from Lucky Mark. In early August, $12.8 million arrived in an account belonging to one of Michél’s companies. (Kenner says the US government hasn’t proven that Low controlled or directed the funds sent by Lucky Mark.) Michél then sent about $3 million to Broidy’s wife’s law firm, which in turn sent $900,000 to Lum Davis. A further payment of $10 million came to Artemus, the other Michél-controlled company, later in the month.

7

“George,” the agent asked, “you’re a smart guy, right?...Help me understand why you’re in the middle of all this. Why do they need you?”

It was Jan. 3, 2018, and Higginbotham was seated in a DOJ meeting room across from Harry Lidsky, a senior special agent from the inspector general’s office with responsibility for investigating “insider threats,” and one of his colleagues. Lidsky made a point of telling Higginbotham the door was unlocked. He was free to leave if he wanted.

Internal DOJ and FBI messages and memos reveal that Michél had by now become a key target of their investigation into Low. FBI agents considered him the “current best opportunity to get a co-operating witness” and were seeking ways of “getting leverage on Michél for the 1MDB investigation.” Higginbotham, who was a DOJ employee and thus in Lidsky’s jurisdiction, was a smaller fish, but he had played a role in getting money from Asia into Michél’s accounts.

At the time of the January interview, Higginbotham and Lidsky had spoken on several occasions, with Higginbotham insisting that nothing he’d done for Michél amounted to espionage or improper involvement in national security issues. He said it was all just business, with Michél helping Low for a “financial motive.”

Lidsky began his questions, focusing on the payments from Lucky Mark and an additional $41 million sent from a different Hong Kong company. Higginbotham had helped facilitate the transfers on Michél’s behalf, going as far as meeting with Low in Macau to discuss how best to move money into the US. Weeks later he told inquiring executives at Michél’s bank that Lucky Mark was a souvenir manufacturer that had hired Michél for a “complex civil litigation matter” too sensitive to discuss. He made no mention of Low.

GUO: NATALIE KEYSSAR

"You've had discussions with an individual by the name of Jho Low overseas in Southeast Asia," Lidsky said. "Is that correct?"

"I have had discussions with him, yes."

"And those discussions have included transferring money?"

"Yes."

Higginbotham told Lidsky he'd said Lucky Mark made souvenirs based on a description he found online. Lidsky replied that that was wrong. Lucky Mark's name was similar to a real souvenir manufacturer's, but the government had concluded that the two entities were unconnected. Lidsky said to Higginbotham that this was a common Low tactic, intended to create confusion about where funds originated.

"George, there's a problem here," Lidsky told Higginbotham. "We have a bank fraud issue. We have false statements." The Lucky Mark sending money to Michél "was started last year. They don't sell anything. They don't make anything. They don't have services. They don't do shit. They're a shell company for money laundering."

"OK," Higginbotham replied.

"And don't say, 'Yeah, you're right.' Don't say, 'No, I disagree.' Just take it all in for right now," Lidsky said.

Continuing to squeeze Higginbotham, Lidsky laid out his case: "You're creating paperwork and doctoring up contracts that facilitate money from this guy's company, which you know—whether you knew before, you certainly know now—is a shell," he said. "In a matter of weeks, millions of dollars start flowing" to Broidy, Lum Davis and Michél. "What did you get?"

"A buck seventy"—$170,000.

"Peanuts in the grand scheme of things."

Lidsky continued: "You have a huge opportunity to make your position a lot better, but you can also make it worse."

Days later, Lidsky and Heuchling met with Michél in Los Angeles. After the agents asked him about the money he'd been receiving from Asia, according to Heuchling's written summary of the interview, Michél said the funds came from a Thai businessman who was investing in his entertainment projects. He held that Low had "nothing to do" with his financial arrangements. When the agents asked Michél to account for Higginbotham's visit to the Chinese Embassy, he had an explanation ready, Heuchling wrote. Michél said he'd been working to promote Chinese investment in Haiti and had asked Higginbotham to update China's ambassador in his stead.

The agents didn't buy it. When they told Michél they were aware he'd been doing business with Low, his story changed, according to Heuchling's summary. He acknowledged working with Low since early the previous year. (Kenner disputes Heuchling's summary and says Michél didn't change his account.)

Still, Michél didn't believe he'd done anything wrong. Heuchling wrote that Michél "wanted the interviewing agents to understand that because of his celebrity status and his connections, he travels all over the world and meets with all sorts of people."

The FBI tried to convince Michél that it was in his best interest to cooperate with its 1MDB investigation. Later in January, Heuchling sent a text to his supervisor: "If Pras comes around, and he's not there yet, he's going to realize he has a lot of time to work off." Federal prosecutors in Washington were laying the groundwork to charge him with acting as an unregistered agent of a foreign government, an offense that carries a prison sentence of as much as 10 years. He also faced potential charges for election-law violations relating to Low's alleged political donations. According to people familiar with the matter, the government wanted Michél to plead guilty to a felony, forfeit the bulk of his wealth and agree to assist with other prosecutions to avoid a broader indictment.

Michél decided to reject the plea—for a number of reasons, Kenner says. "One of the most significant is that it would make him a felon by admitting to willful acts he didn't believe were true."

In late February, Heuchling wrote to another colleague to say that Michél's then-attorney "pretty much told us he's not comin back in."

"Dang," the colleague replied. "He knows what's coming, right?"

8

Michél's trial is set to begin on March 27 in Washington. It will feature a rare convergence of superpower rivalry, Beltway politics and Hollywood glamour. Kenner, who's previously represented rap artists such as Snoop Dogg and Suge Knight, is seeking to call Obama and Trump—both targets of Low's influence efforts—as witnesses, though it's uncertain whether either former president will appear. Meanwhile, DiCaprio is also on the witness list for the government, as is Higginbotham, who filings show is cooperating with prosecutors. His testimony will be crucial; Kenner says he'll argue that Higginbotham is violating his professional obligations as Michél's former attorney by disclosing their interactions.

If convicted, Michél is likely to be treated far more harshly than the other Americans involved in Low's lobbying campaign. Higginbotham pleaded guilty in 2018 to a single count of conspiracy to make false statements to a bank, with any sentence to be determined later. (A representative for Higginbotham didn't respond to a detailed message seeking comment.)

Lum Davis was sentenced to two years in prison for her own guilty plea to one count of aiding and abetting violation of the Foreign Agents Registration Act. In October 2020, Broidy pleaded guilty to a count of conspiracy to violate FARA stemming from his work for Low, but he was pardoned by Trump three months later. The following April he signed a cooperation agreement with the DOJ, which promised not to prosecute him for other crimes that may arise in its investigation, in exchange for his testimony and other assistance.

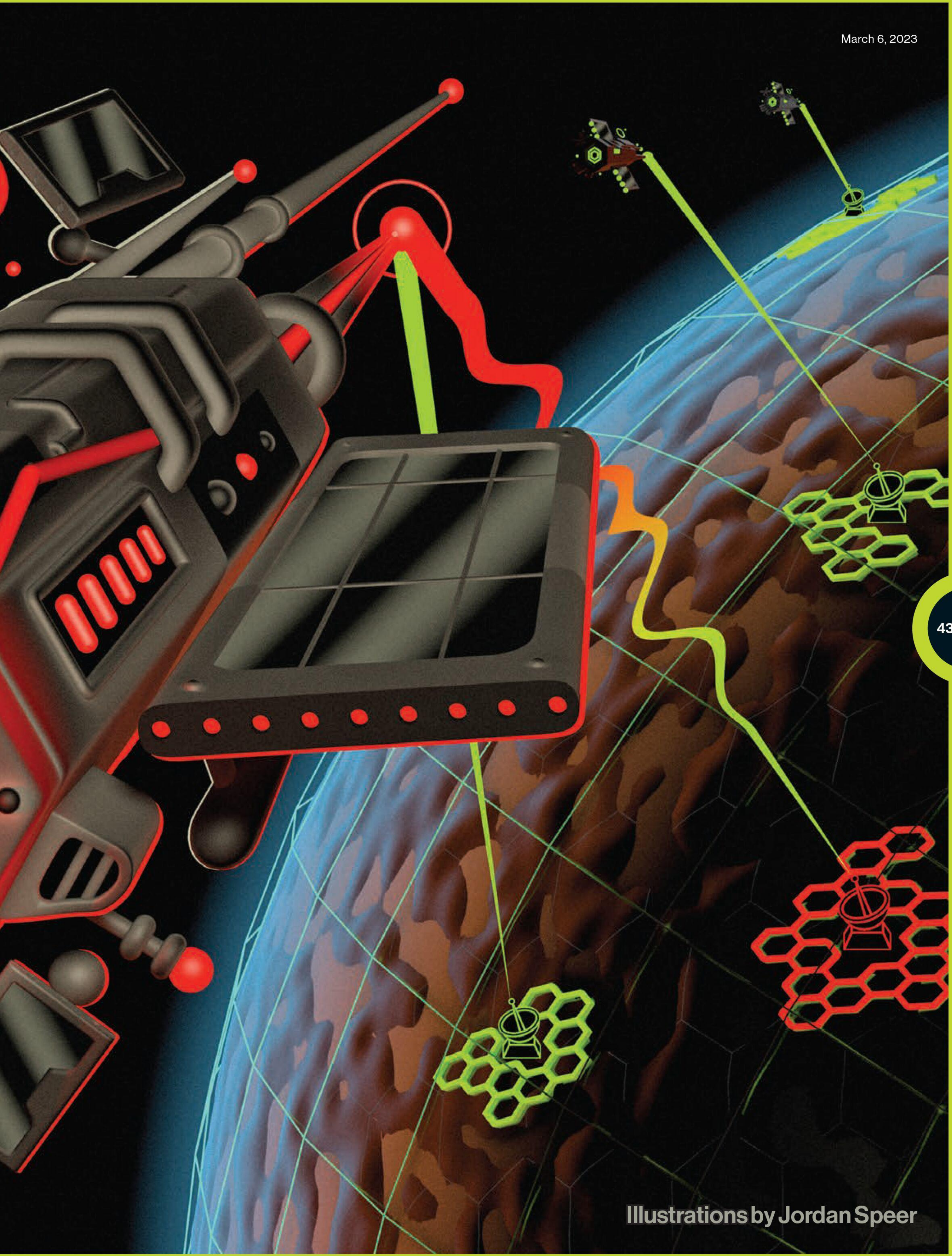
And for the time being, there's little chance that the man who brought them all together will see a prison cell. Wanted on a range of charges by the US as well as Malaysia, Low is believed to be living in China with his family. Although he's keeping a low profile, he's occasionally spotted in public. One of the last sightings was in 2019, at Shanghai Disneyland.

The Russian Hack Everyone Is Finally Talking About



As Putin began his invasion of Ukraine, a network used throughout Europe—and by the Ukrainian military—faced an unprecedented cyberattack that served as an industrywide wake-up call

By Katrina Manson

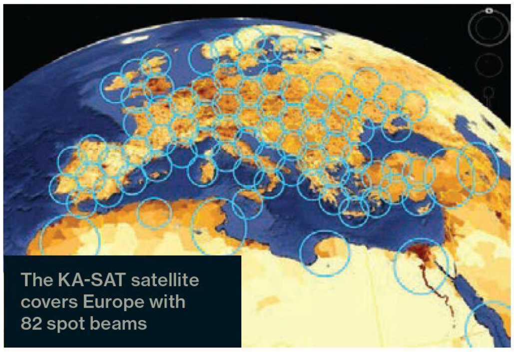


Illustrations by Jordan Speer

Andreas Wickberg loves snowmobiling to the house he built in the icy reaches of Lapland, north of the Arctic Circle. Each month come spring, he and his wife relocate for a week or so to a "very, very isolated" spot about 335 miles northwest of their usual home near Umea, a Swedish university town. Up in Lapland, it's just them and three other houses. Wickberg develops payment-processing software for a Swedish e-commerce company. What makes this possible is satellite internet: For 500 krona ($48) a month, he and his wife can make work calls by day and stream movies by night.

A little more than a year ago, though, they and their neighbors found themselves cut off from the outside world. At 7 a.m. on Feb. 24, 2022, Wickberg turned on his computer and took in the news that Russian President Vladimir Putin had begun an invasion of Ukraine with airstrikes on Kyiv and many other cities. Wickberg read everything he could, aghast. Not long after, a neighbor came around asking to borrow the family's Wi-Fi password because their internet was on the fritz. Wickberg obliged, but 10 minutes later, his connection dropped, too. When he checked his modem, all four lights were off, meaning the device was no longer communicating with KA-SAT, Viasat Inc.'s 13,560-pound satellite floating in the sky 22,236 miles above.

The way each of the connections in his community switched off one by one left him convinced that this wasn't merely a glitch. He concluded Russia had hacked his modem. "It's a scary feeling," Wickberg says. "I actually thought that these systems were much more secure, that it was sort of far-fetched that this could even happen."


The KA-SAT satellite covers Europe with 82 spot beams

Viasat staffers in the US, where the company is based, were also caught by surprise. Across Europe and North Africa, tens of thousands of internet connections in at least 13 countries were going dead. Some of the biggest service disruptions affected providers Bigblu Broadband Plc in the UK and NordNet AB in France, as well as utility systems that monitor thousands of wind turbines in Germany. The most critical affected Ukraine: Several thousand satellite systems that President Volodymyr Zelenskiy's government depended on were all down, making it much tougher for the military and intelligence services to coordinate troop and drone movements in the hours after the invasion.

Alerts from customers, engineers and automated systems soon began to flood in via phone, Slack and email, according to a senior Viasat executive who was part of the response team and spoke on condition of anonymity for fear of reprisals. Attackers were overwhelming the customers' modems with a barrage of malicious traffic and other kinds of attacks. It took Viasat hours solely to stabilize most of its network, and the official says it then spent many weeks fending off subsequent attacks of "increasing intensity."

It would take 35 days for Viasat to even begin to say publicly what it thought had happened, and 75 days for any country to point the finger officially at Russia. In the meantime, Ukrainian officials trying to reach remote locations were forced to rely where they could on landlines, cellphones, even dispatching runners to reach the front lines. "Industry was caught flat-footed," says Gregory Falco, a space cybersecurity expert who has advised the US government. "Ukrainians paid the price."

Zelenskiy and his deputies have mostly declined to discuss the hack's impact on their operations, but Viktor Zhora, a senior Ukrainian cybersecurity official, told reporters last year that it resulted in "a really huge loss in communications." The Russian Embassy in Washington denies any responsibility for the attack, dismissing blame as "detached from reality."

The attack was, however, a wake-up call. "The war is really just revealing the capabilities," says Erin Miller, who runs the Space Information Sharing and Analysis Center (Space ISAC), a trade group that gathers data on orbital threats. Cyberattacks affecting the industry, she says, have become a daily occurrence. The Viasat hack was widely considered a harbinger of attacks to come.

Just about every day, more people around the world rely on satellite internet connections than did the day before. Yet for decades, industry specialists say, the commercial satellite industry has underinvested in security measures and essentially ignored what might happen if its systems were hacked on a grand scale. There are 5,000 active satellites circling the planet, and high-end estimates predict the number will top 100,000 by the end of the decade. Although smaller, cheaper satellites are being launched into orbit by the thousands, the machines and the networks that run them remain woefully insecure. Customers who rely on them need a backup plan.

For decades after the dawn of the Space Age, nobody worried much about making satellites tamper-proof—it was tough enough just to put them in orbit. By the 1980s, though, there were more satellite systems to play with, and spies and amateurs alike started figuring out how to do it. In 1986, John MacDougall, an American engineer who dubbed himself Captain Midnight, jammed HBO's signal to protest fee hikes. Today, China, Russia, the US and dozens of other nations have demonstrated that they can hack stuff in space, says James Pavur, a cybersecurity researcher who recently went to work for the Pentagon as a digital service expert. His research has shown just how easy it is to hack an orbiting satellite and its data transmissions or the ground networks that support them.

Almost all of daily life entails some use of satellites. GPS coordinates and space-based relays are an essential component not only of global communications, military operations and weather forecasting, but also of farms, power grids, transportation networks, ATMs and some digital clocks. All 16 infrastructure sectors the US has designated as critical "depend to a great extent,

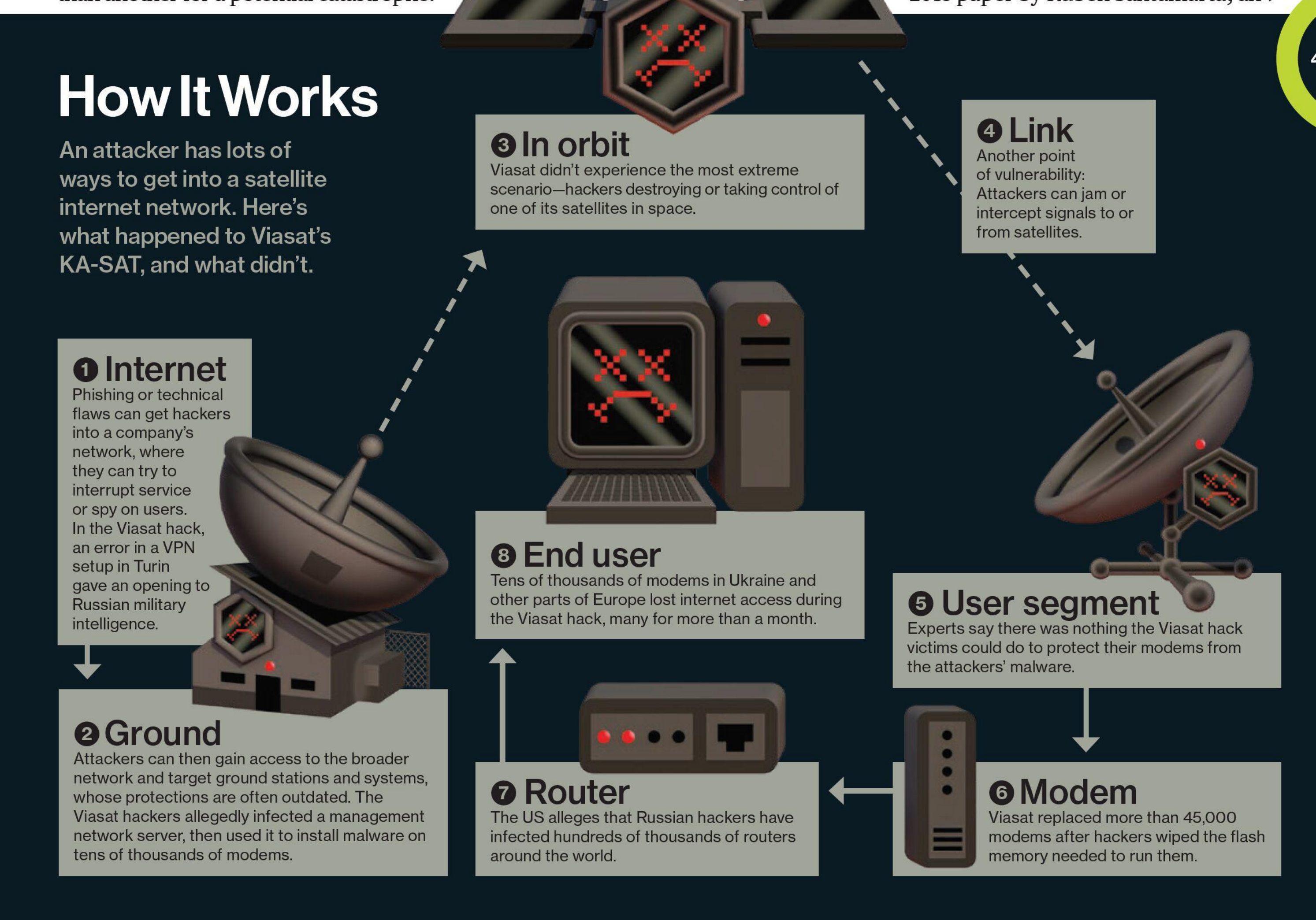
COURTESY AIRBUS

pretty much all of them, on space systems," says Sam Visner, a former chief of the National Security Agency's Signals Intelligence programs who's now vice chair of the Space ISAC. Visner has argued for years that satellite systems aren't secure enough, including the ground stations. Pavur says this gear has been hacked at least two dozen times in the past decade or so. As part of his 2019 doctoral thesis at the University of Oxford, he intercepted sensitive communications beamed down to ships and Fortune 500 companies, including crew manifests, passport details and credit card numbers and payments, all with $400 worth of home equipment. "It turns out to be easy," he says. "I just bought some cheap antennas, pointed them at some satellites and found I could clean up the data from the signals, because nothing is encrypted."

In the year before Putin's invasion of Ukraine, the US intelligence community warned publicly and privately that Russia was testing its ability to hack and destroy satellite systems. Even so, it remained easy for companies to underestimate the risks—partly because there were so many new intermediaries between them and end users, and partly because space still seemed untouchable. Denial was the norm, allowing businesses to save on infrastructure spending while leaving no one company more responsible than another for a potential catastrophe.

A month before the modems went dead, the NSA issued a warning about multiple vulnerabilities in commercial satellite equipment and recommended a series of security-conscious practices, including encryption, password changes, software updates and steps to keep network management systems isolated from one another. The Cybersecurity and Infrastructure Security Agency also gave classified briefings to industry leaders. President Joe Biden was preparing for the possibility that Russia would invade Ukraine, and he wanted to assess what kinds of cyberattacks Putin might retaliate with if the US imposed economic sanctions, according to a White House official familiar with his thinking, who spoke on condition of anonymity to discuss national security matters. The official, who says companies need to radically improve the security of satellite ground systems, also says the federal government regularly asks companies privately to patch particular vulnerabilities, and some just don't.

The senior Viasat executive says the NSA's public warning was too vague to serve as a real heads-up. He says the company discussed it with the agency and concluded it wasn't specifically relevant to Viasat's operations, which include beaming Wi-Fi connectivity to sensitive government aircraft. But the NSA cited a 2018 paper by Ruben Santamarta, an ▶



◀ independent cybersecurity researcher, that might've given the company pause. He'd concluded that flaws in a network's configuration—the settings that keep it running—could leave military modems hackable.

Santamarta says the critical vulnerability of satellite ground systems was plain as day back in 2014, when he wrote a different paper outlining how an invading military could hack and disable mobile satellite terminals and head off a counterattack. When he presented that one, the industry downplayed the threat. Until last year he'd never seen the attack he'd described in real life, but pages 10 and 11 of the 2014 paper, he says, are "literally what happened in Ukraine."

In the weeks after the attack, Wickberg, who read a blog post Santamarta had written about it, sent the researcher one of the affected modems. Santamarta began pulling the hacked device apart with a screwdriver and a hot air gun, using a special reader to examine its rewritable flash memory. In a normal modem, the code that runs the device appears as a bunch of different numbers and word strings. Instead, Santamarta saw a meaningless pattern—junk data that had wiped the modem clean. "It was basically garbage," he says. After further review, he concluded the modem could be overwritten without any kind of authentication. In other words, Viasat left a door open.

The same day Santamarta was dissecting the modem, Viasat issued an opaque statement that essentially blamed one of its corporate partners. Viasat had flown afflicted modems to California for its own inspections and reverse-engineered the hack, then traced the wiper malware to a management network server, where it discovered what appeared to be a malware toolkit. A month later, with its broadband service still in disarray, Viasat suggested the hack had taken advantage of an embarrassingly basic hole in a part of the network run by Skylogic SpA. Skylogic was meant to secure the system with virtual private network software. "Subsequent investigation and forensic analysis identified a ground-based network intrusion by an attacker exploiting a misconfiguration in a VPN appliance," Viasat said in its statement. Mark Dankberg, then the company's executive chairman, said the attack "was preventable, but we didn't have that capability."

Skylogic's parent company, the French telecom Eutelsat Communications SA, acknowledges that a VPN in Turin, Italy, where Skylogic is based, was the entry point for the hack, but denies responsibility. It says that the key flaws were in Viasat's modem equipment, the target of the advanced attack, and that flaws in the user part of the ecosystem were a "well-known fact." Santamarta says hacking one part of a complex network shouldn't give you access to all of it. "If a threat actor has access to the management system, it's almost game over," he says.

In the wake of the hack, neither company mentioned seeking out the perpetrator or uttered the name Russia. For months, Viasat declined further public comment on the matter, irking US officials, peers and researchers. It simply replaced more than 45,000 affected modems and kept its head down. Privately, Viasat executives joined a classified briefing about the hack that the US intelligence community gave to a range of worried commercial space companies in late March, according to several attendees. Some guests were granted access to classified material for the day. While one attendee says the briefing lacked key details required to put reforms into action, another says it succeeded at one thing: forcing the issue.

By then, US officials had begun telling reporters that Russia's military intelligence agency, the GRU, was responsible for the attack. Researchers determined that a piece of malware called ukrop, which had been anonymously uploaded to a public repository in mid-March, was the same wiper used against Viasat. (*Ukrop* is a Russian slur for Ukrainians but could also be short for "Ukraine operation.") In the malware's code, they found similarities to a 2018 virus that the US had attributed to a Russian hacking group with alleged GRU ties.

One of the most significant insights US intelligence gleaned was that the Russians were prepared to take significant diplomatic and strategic risks. They knew spillover from the satellite attack would affect countries outside Ukraine but decided to proceed anyway.



US Air Force officers touring the soon-to-open ISAC watch center

For Anne Neuberger, US deputy national security adviser for cybersecurity and emerging technologies, drawing private conclusions wasn't enough. She wanted consequences. The US quietly spent six weeks talking allies in the affected area into publicly blaming Russia. That was more complicated than it might sound: As a matter of policy, many countries simply don't attribute responsibility for cyberattacks to other nations for fear of hurting diplomatic relations or inciting further attacks. (And Washington's intelligence claims haven't always proven reliable.) "Attribution is still very uncomfortable to many countries because, at the end of the day, it's political," Neuberger says, "but this is also why it is so important." To make the case, the US Department of State and intelligence agencies shared broad technical information with the European Union and classified intel with France and Germany to overcome the influential members' initial reluctance, says a European official who's not authorized to speak publicly.

In May, the EU released a strongly worded statement censuring Russia for targeting the KA-SAT network. "This unacceptable cyberattack is yet another example of Russia's

COURTESY SPACE ISAC

continued pattern of irresponsible behaviour in cyberspace, which also formed an integral part of its illegal and unjustified invasion of Ukraine," the statement read. The US was careful to point the finger second, and the UK, Canada and Australia joined, too. And the American government sent satellite terminals to Ukraine.

These countries are still dithering over how to improve satellite security for the long term. "There's not a lot of coordinated action in the US right now," says Falco, the space cybersecurity expert, who's part of a new effort to establish global standards. "No one really has the ball." Much of this comes down to complex supply chains and simple self-interest. Many satellite companies fight regulation, even if it comes with more classified briefings and better intel, because they don't want to deal with the red tape—or invest in making their systems safer. Viasat, for its part, is among holdouts that haven't joined the Space ISAC, the info-sharing trade group. (The company says it will join, though it wouldn't say when.) Over the past year, the group's 65 members have run a series of tabletop war games modeling responses to similar attacks.

One lesson of the Viasat hack is the need for alternatives to satellite communications. Armies may struggle to stay online if they rely on civilian operators reluctant to go up against military-grade hackers, and the US and its NATO allies have urgently sought backup systems for future conflicts. Elon Musk's Starlink Inc.—a private network of thousands of tiny satellites, rather than one massive one, like KA-SAT—came to the rescue in Ukraine. But private networks aren't panaceas. Musk has said Starlink, too, has faced repeated jamming and hack attempts and has likewise refused to facilitate long-range drone strikes.

"We must do what it takes to secure the universe"

In September, Konstantin Vorontsov, the head of the Russian delegation to a United Nations working group on space threats, said commercial satellites used to support enemy militaries may also become "a legitimate target for retaliation." He told attendees in Geneva, "It seems like our colleagues do not realize that such actions in fact constitute indirect involvement in military conflicts." Humanitarian groups seem to be in rare, uncomfortable agreement. The International Committee of the Red Cross said in February that military space systems need to be kept separate from civilian ones.

In the US, the Pentagon's public efforts to strengthen satellite defenses have centered on Hack-a-Sat, a competition now in its fourth year. It offers a $50,000 grand prize (plus street cred) to teams of researchers who hack simulated satellites and write reports on their tactics and the systems' vulnerabilities. Teams are scored based on their completion of virtual challenges and their attacks on rivals' systems. At the next qualifier, in April, 800 teams are expected to compete to commandeer a live satellite in orbit later this year.

Steve Colenzo, a US Air Force computer scientist who helps run the competition, says his team is trying to build trust and lend the military a sense of cool. Speaking against a video backdrop reminiscent of the 1990s movie *Hackers*, he acknowledges that it's a leap. The Hack-a-Sat website is daubed in graffiti and has a skull-and-crossbones insignia. "We must do what it takes to secure the universe," it reads, and build "a global alliance of hackers, researchers and everyday enthusiasts who nerd out on hacking and securing the future of space."

Viasat says it's actively shared what it can with law enforcement officials and other stakeholders. It shared additional findings with *Bloomberg Businessweek*, but the details still fall short of explaining how the attackers made their way through the system or targeted particular areas. The company says its caginess owes to its prioritizing security and stresses that it wasn't in control of the network that was hacked.

For many in the cybersecurity industry, the most striking thing about the Viasat hack is that, unlike with a phishing attack, there was nothing Wickberg or the Ukrainian military could've done to prevent it. "The victim didn't do anything," says Juan Andrés Guerrero-Saade, senior director of research at SentinelOne, a firm that analyzed the malware. "All you had to do was wake up that morning and drink your coffee and get infected." Put another way: Satellite connections could start blinking off again at any time. Critical systems can't fully count on them, nor can people who live a ways off from everyone else.

Since the attack, the broader psychology of denial has begun to dissolve. In March the Space ISAC is due to open a facility in Colorado Springs that aims to keep a more active eye on threats to its members, including hacks, signal jams and other attacks on satellites and their supply chains. A US law passed last year will soon require all critical infrastructure companies to report any significant cyberattacks to the Cybersecurity and Infrastructure Security Agency within 72 hours.

There's a lot left to do. The satellite services industry remains convoluted and opaque, especially to customers who may have no idea how many intermediaries are involved in their service, according to research by MJ Emanuel, an incident response analyst at CISA. Ground-based parts of the systems, which are generally a mess of connections, networks and third parties, can be especially vulnerable for this reason. Also, it's tough to fix code in space. Guerrero-Saade, a former national security adviser to the president of Ecuador, says companies at all levels of the industry need to spend less time lobbying and more time improving their security. Governments, he says, need to take a more interventionist stance.

For the companies, the business repercussions of the hack have been minimal. Valued at $469 billion in 2021, the industry has continued growing steadily. Viasat's business, too, seems to be fine—even though, the senior executive says, threats against the KA-SAT network are ongoing. Viasat says it has continued to implement changes but wouldn't describe them. "The Russians had to know quite a bit about Viasat's system in order to execute this," Falco says. "It is super, super repeatable." Ⓑ

WHERE WOULD YOU BUILD

THE R



WHY ALASKA SHOULD DEFINITELY, PROBABLY, BUT MAYBE NOT B



ROAD?

BY DAVID WOLMAN

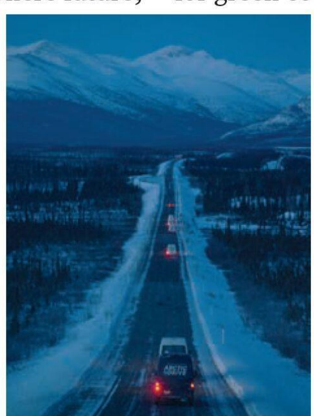
The Alatna River winds through a valley in Gates of the Arctic National Park and Preserve

UILD A 211-MILE HIGHWAY ACROSS ITS UNTRAMMELED INTERIOR

Coldfoot, Alaska, is a lone truck stop-cafe-bar-motel 60 miles north of the Arctic Circle. It's the last spot for northbound semis to gas up on their way to Prudhoe Bay and a place where camo-clad hunters smelling to high hell eat stacks of burgers and swap stories while dead moose lie in pickups parked outside. On one of Coldfoot's brisk September mornings, a rumble grows into steady thunder. Man-made wind sends grit whipping across the dirt driveway where someone, a few weeks earlier, placed a wooden sign with red-stenciled letters: "Helicopter Parking Only."

As the four choppers warm up, out from the motel come about two dozen men wearing orange helmets, sunglasses and heavy boots. They make their way to the aircraft and load chainsaws, daypacks, brush trimmers and shovels into long baskets hanging beside the struts, then climb aboard. One at a time, the aircraft rise above the frozen ground, turning first to face the sunlit peaks framing the valley before banking west toward the foothills of the Brooks Range.

Traveling in and out of camp daily between August and early October, when the first snows fell, the crews worked to clear trees and brush from dozens of areas where future, larger crews could build concrete landing pads and begin delivering the equipment necessary to build a road. Not just any road: a 211-mile private "industrial access" corridor sliced through one of the largest and most pristine wilderness areas on Earth.


A road leading to Coldfoot

When the helicopters first arrived on short notice, recalls Benjamin Umstead, Coldfoot's operations manager, it felt more than a little like that scene from *Apocalypse Now*. "You could almost hear *Ride of the Valkyries* playing," he says.

The Ambler Access Project would connect the world to a mineral belt in an area known as the Ambler Mining District. Beneath this mountainous, virtually untouched corner of Alaska lie rich, possibly enormous deposits of copper, zinc, lead, silver and gold. They've stayed where they are to this point because there hasn't been any clear path from mines to markets. Ambler is remote, so remote that it feels woefully insufficient to situate it with words such as "hundreds of miles northwest of Fairbanks," but there you have them.

Clean energy initiatives, ironically, are what might finally dirty the district's Edenic expanse. Last year the US Congress passed the Inflation Reduction Act (IRA), which authorized almost $400 billion for investments in energy projects and fighting climate change, including mining for the elements key to decarbonization. Combined with President Joe Biden's infrastructure bill from the year before, which included incentives for domestic sourcing of dozens of different minerals, a mining boom seems close at hand, even in places long thought to be out of reach.

To many people in Alaska, and in the mining industry generally, a road to Ambler would be a victory for pragmatism. The minerals are there, all but begging to be unearthed; the state's economy would get a welcome boost; and the climate, local communities and even the nation's security will all benefit if more mining takes place on US soil.

All true, or trueish. But questions persist as to whether Ambler will ever be economically viable, what the environmental impact might be and who truly benefits apart from a handful of state bureaucrats and Australian and Canadian mining executives. Although it makes sense to quit relying on other countries to meet our mineral needs, critics of the Ambler Access Project worry about importing the same exploitative economics and destructive practices that have made mining operations such a scourge in other parts of the world. As Coldfoot operations manager Umstead put it, indelicately, watching another aircraft lift off toward the site of the proposed road: "Why are we acting like Alaska is f---ing Peru?"

The cold math of a warming climate is that decarbonization will require dirty groundwork. Before we can quit fossil fuels, we'll need to ratchet up supplies of raw materials for green economy essentials such as EV batteries, charging stations, solar panels and wind turbines. Chief among those materials are copper, lithium, cobalt, zinc, tin, silver and graphite. It's tough to overstate the scale of demand for "critical minerals," a catchall to describe 50 such resources that are vital for the economy, decarbonization and military applications. According to the World Bank's 2020 *Minerals for Climate Action* report, demand for copper, cobalt, zinc, silver and lithium could increase by almost 500% by 2050.

An electric car today requires six times the mineral inputs of a gasoline-powered vehicle, according to the International Energy Agency. An onshore wind farm needs nine times the volume of a gas-fired power plant. And setting aside the demands of green technology, few people can get through a day without making use of one of the minerals listed in the previous paragraph.

Unless all you read is crypto news, you've seen the headlines about how the US is, in the words of a White House report, "dangerously dependent" on other countries for minerals, as well as to refine some of the raw materials and, separately, to make products with them. Taiwan accounts for an estimated 92% of semiconductor production; China accounts for three-quarters of the world's cell fabrication capacity for advanced batteries; cobalt and tantalum come primarily from Congo; 11 of the world's 20 largest copper mines are in Chile and Peru. Assessments of this kind are easy to find, and they make it clear that more mining is coming to America.

Since the 1950s prospectors have known about Ambler's mineral potential. Modern-day estimates of its contents are imprecise, but at only one of the proposed mine sites, models suggest an anticipated haul of 1.2 million tons of copper, 1.7 million tons of zinc, 291,000 tons of lead, 1,700 tons of

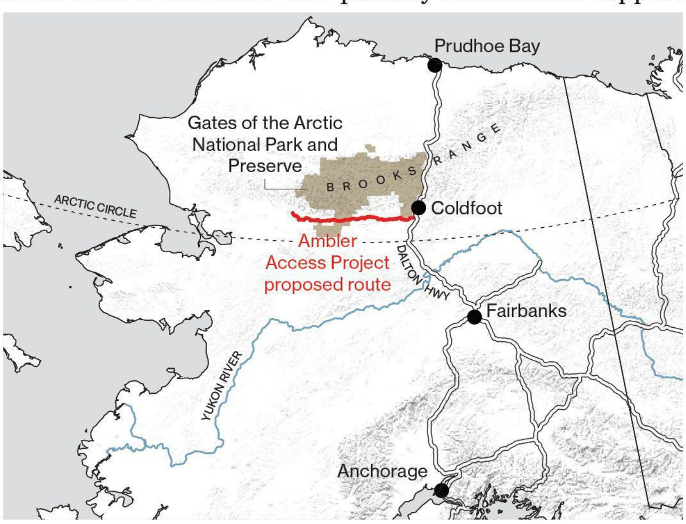
PREVIOUS SPREAD: KILIII YUYAN. THIS PAGE: PAWEL DWULIT/THE TORONTO STAR/ZUMA PRESS. DATA: TANANA CHIEFS CONFERENCE, ALASKA INDUSTRIAL DEVELOPMENT AND EXPORT AUTHORITY, ALASKA DEPARTMENT OF NATURAL RESOURCES, BUREAU OF LAND MANAGEMENT, US GEOLOGICAL SURVEY

silver and 23 tons of gold. According to the US Geological Survey, that deposit, known as Arctic, would be one of the largest such sites on the planet in terms of tonnage and concentration of the sought-after metals.

In 1980, President Jimmy Carter signed the Alaska National Interest Lands Conservation Act, an attempt to compromise between the implicit value of conservation and environmental protection in Alaska and economic reality. The state and its residents not only rely heavily on resource extraction but also have the right to do so for commercial and subsistence uses. Section 201(4) of the law includes a specific provision regarding Ambler:

(b) Congress finds that there is a need for access for surface transportation purposes across the Western (Kobuk River) unit of the Gates of the Arctic National Preserve (from the Ambler Mining District to the Alaska Pipeline Haul Road) and the Secretary shall permit such access in accordance with the provisions of this subsection.

Over the past 10 to 15 years, the idea of a giant road connecting Ambler to the Dalton Highway began to receive more serious attention. The primary institutional support comes from the Alaska Industrial Development and Export Authority (Aidea), a boring-sounding but powerful public corporation that uses taxpayer money to subsidize private ventures, with the hope of catalyzing economic development. A report by the University of Alaska Center for Economic Development concludes that the access road project would result in thousands of jobs and hundreds of millions of dollars in annual wages.



Today four primary claim holders are hoping to build mines in Ambler and potentially at points along the proposed route. All are smaller spinoffs of major mining companies, most of them based in Canada and focused on gold. The most active of the four is Ambler Metals, a joint venture between Vancouver-based Trilogy Metals and Australia-based South32. The company has already invested about $15 million in the road, after cutting a deal with Aidea that if the road is ever built, Ambler Metals LLC will have a $15 million credit before it will have to pay any tolls. The company didn't respond to requests for comment.

In April 2020, just as the scope and potential economic impact of the pandemic were becoming clear, Aidea used an emergency meeting on the topic of Covid-19 relief to allocate $35 million for preliminary fieldwork on the road, even though it didn't have final approval from the federal government or the landowners. It was not a move that fostered trust from local stakeholders, environmental groups and tribes, who felt Aidea was using the public-health crisis to advance its road-building agenda. They responded promptly, with lawsuits. Aidea has said it's committed to responsible development that benefits the local community, and a spokesperson pointed out that two tribal councils recently withdrew from the litigation.

Then, in early 2022, the Biden administration suspended the issuing of permits for projects that cross federal lands. (The Ambler Access Project would cut through Gates of the Arctic National Park and Preserve.) Yet that move put the administration in the awkward position of calling for more domestic sourcing of critical minerals to support climate and strategic goals, while simultaneously denying a major proposal to get at those very minerals. In retaliation, Alaska Senator Dan Sullivan, a Republican, declared he would block the nomination of otherwise qualified Pentagon officials until Biden woke up and smelled the copper. "I'm sick and tired of the targeting of my great state," Sullivan said during an Armed Services Committee hearing.

Yet even while Sullivan was complaining, Ambler backers were quietly pushing forward with their preliminary fieldwork: The spring and summer progress on helicopter landing zones, cultural resource surveys, fish habitat studies, site surveys and sample drilling all continued. Then in the fall, Democratic Representative Mary Peltola, the first Alaska Native elected to the House, expressed support for the road. In a statement to *Bloomberg Businessweek*, Peltola said her constituents have proven able to balance extraction and environmental stewardship. "That means limiting public access to any road, hiring a local workforce, and earning and sustaining trust with a community-oriented approach," she said. "We can both develop our state and manage our natural resources in a way that serves this generation and generations of Alaskans to come."

Yet the biggest boost of all for ventures such as the Ambler Access Project may turn out to be everyday Americans shopping for new cars. The IRA includes tax rebates for EVs, but there are rules for which cars qualify, rules designed to motivate carmakers to do more of their manufacturing and material sourcing in the US. In the end, good old self-interested consumers may push demand for these materials up enough to make a highway to nowhere a highway to somewhere.

Is it worth it, though?

"Knowing what I know of the true impacts of this [road and mining projects], it's hard to imagine a world where the benefits of such a project would outweigh the costs," says Alex Johnson, Alaska senior program manager with the National ▶

◀ Parks Conservation Association. "This is about a nationally and globally significant landscape and environment."

The Ambler road stands to cross 11 major rivers and thousands of streams, potentially devastating fish habitats and disturbing fragile tundra wetlands. Ungodly amounts of gravel will have to be drawn from rivers and stream beds all along the road to support bridges, machinery, fuel depots and culverts, not to mention the road itself. Construction will inevitably send debris into local waterways, as will use of the road, with small amounts of ore spilling out along the 211-mile drive. With more than 160 trucks traversing the road every day for decades, even little bits of spillover, multiplied over time, will go a long, dreadful way. And then there are the migrating caribou of the Western Arctic herd. They usually travel at night, putting them at risk of being killed or, perhaps more damaging, forcing a shift in their migratory behavior. Writing in the *Anchorage Daily News* in January, retired US Fish and Wildlife Service biologist Dick Hensel put it plainly: The environmental and social impacts of the road "cannot be overstated."

> "COMMUNITIES IN ALASKA HAVE EVERY RIGHT TO ASK THE HARD QUESTIONS OF THE MINING FIRMS"

Meanwhile, the track record of companies cleaning up and managing mines in Alaska and around the world is frankly abysmal. A common approach has been to extract precious cargo and then bankrupt the local holding company, leaving taxpayers on the hook to deal with cleanup. Also worrisome to industry critics is whether the banner of critical minerals is providing cover to companies seeking to mine gold, "something we definitely do not need for the clean energy economy," says Heather Hardcastle, adviser to the Alaska-based Salmon Beyond Borders campaign. "Many of these mining companies, executives and financiers pushing into Ambler are part of the same gold-centric fraternity trying to cash in on prospecting and exploration throughout Alaska and the West. Even if specific mining ventures never happen, they still make a ton of money before moving on to the next speculative project."

That may be the case for proposed mining sites in other parts of Alaska and the West, but not Ambler, says Dave Szumigala, a mineral exploration geologist with Alaska's Department of Natural Resources. "No one in the mining industry would call this a gold deposit. This is a copper-lead-zinc deposit with byproduct gold and silver. Gold is certainly important, because it lends considerable value to the ore"—that is, a given volume of rock is more valuable because more metals can be extracted and sold from it—"but gold is not the reason for mining the Arctic deposit or to search for other deposits of this type in the Ambler mineral belt."

Most opposition to the project comes from environmental groups and hunters, but opinions vary among Alaska Natives who own land the road would pass through or live close to the proposed route. Some of Alaska's powerful Native corporations, including the primary landowner in the area, Nana Regional Corp., have signaled support of the road, whereas many individuals remain critical.

The essential conflict for subsistence communities is that, though the road to Ambler could provide badly needed jobs, the development itself could harm the resources that make subsistence living possible. "Communities in Alaska have every right to ask the hard questions of the mining firms," says Aimee Boulanger, executive director of the Initiative for Responsible Mining Assurance, a trade group that certifies mine sites on behalf of companies. Mines and the roads to reach them provide one generation of jobs, if that, while their footprints will last until the next ice age.

Vincent Simon, a tribal member from the village of Allakaket, embodies the conflicting feelings that many people in Alaska, and especially Alaska Natives, have toward the road and the potential wave of mining projects it would bring. Simon works for the subcontractor surveying the road. Despite the years of environmental impact analysis, he still worries that restrictions won't be sufficient—or enforced. "The mining company isn't even part of the USA," he says, referring to Ambler Metals. "We don't know. They might just do whatever they want." Still, he adds, "it'll get built eventually. But they have to take care of us and the country first."

They also have to figure out cost. According to a spokesperson for the Bureau of Land Management, the agency responsible for analyzing Aidea's proposal, if there's a feasibility study for Ambler establishing "that the minerals could be mined at a profit," the bureau hasn't seen it. For one thing, the proposed mines are outrageously remote, even if the new artery is built. Trucks full of ore driving 200 miles east to link up with the Dalton Highway would still be only at the start of their journey. Then it's an additional 600 miles to the port at Anchorage; next the ore would have to travel by boat to be processed elsewhere. Compare that with the transit cost of ore extracted in Montana, Nebraska or Quebec.

Aidea doesn't have an estimated cost for the road, yet is already saying the investment will be recouped—and then some—from tolls paid by mining companies. A report by Montana-based Power Consulting Inc. puts the estimated cost at $1.4 billion and says the project won't come close to paying for itself. Even assuming that all the proposed mines are developed, that the ore they believe to be present pans out and that all the anticipated tolls are collected through the projected lifetime of the mines, payments to Aidea would be just shy of $700 million, according to the report. The seemingly simple fix here may be to charge the companies more to use the road, but no one has said as much. "There is a critical disconnect," the report's authors concluded, between what the mining companies and



An access road in the Ambler Mining District

LOREN HOLMES/ANCHORAGE DAILY NEWS

Aidea have told their respective constituencies about the profits and costs. As Bent Flyvbjerg, an economist and management professor at the University of Oxford, puts it: The "iron law of megaprojects" is that they are "over budget, over time, over and over again."

Timing is another key variable in all this. By the time the road is built, the mines are dug and the ore begins moving to markets, technology may have shifted to such a degree that certain minerals might not be so critical anymore.

Take cobalt, for example. Tesla Inc. has already announced that it's phasing out the element's use in its car batteries. That kind of shift can upend projections about demand. Meanwhile, just about every week there's another news story about a battery chemistry breakthrough or other green tech innovation. In the fall, the Department of Energy announced $156 million in funding for new technologies to extract and refine critical minerals (and rare earth elements) from sources such as mining waste and coal ash. It's doubtful any ore from Ambler will hit the market in the next decade. What if they build this $1.4 billion road, but then in 20 years civilization's mineral needs are completely different?

In the meantime, though, the minerals fueling decarbonization have to come from somewhere. "Are we going to continue outsourcing our environmental and social regulation because it's convenient?" says Alan Weitzner, former executive director of Aidea. Szumigala, the geologist with the state's Department of Natural Resources, says, "If we want domestic supply chains, then we have to develop them in Alaska."

Alaska's lawmakers are playing up this new, almost righteous, positioning for mining in their state, a place where there's essentially no economy without resource extraction. At a conference about critical minerals last summer, Governor Mike Dunleavy said, "If you care about the environment, we need to produce resources in Alaska. If you care about social justice, we need to produce resources here in Alaska. If you care about enriching people, and not dictators, we need to produce resources here in Alaska."

And then there's the China angle. Reliance on foreign, sometimes adversarial, suppliers has become a legitimately urgent issue in Washington, and its ripples could reach all the way to Ambler. In February 2021, Biden signed an executive order for a review of critical minerals supply chains. Spending on domestic production, as outlined in the Infrastructure Investment and Jobs Act, has only just begun, and last year the president invoked the 1950 Defense Production Act, which gives the government still more tools to catalyze domestic sourcing and refinement. "We're going to make sure the supply chain for America begins in America," Biden said during his latest State of the Union address.

Pro-mining forces such as Sullivan and Lisa Murkowski, Alaska's other senator, keep pointing to China as the reason to approve the Ambler road and projects like it, whereas opponents of the road acknowledge the China factor only half-heartedly, making a quick concession before returning to talking points about gravel and caribou.

But the supply chain issue is also an environmental issue in disguise. Think about it this way: Were the Chinese to suddenly cease supplying the US and its allies with certain critical minerals, a race to stand up domestic mining and processing operations would quickly follow. Whatever one's opinion about mining practices today in terms of pollution control, community benefits or the effect on wildlife, imagine what the permitting process would look like if the federal government were suddenly treating domestic production as a true emergency? There's a case to be made that Alaska's people and environment would be better off if Ambler is opened now, carefully, rather than in haste sometime in the future.

Besides, greenwashed gold rush notwithstanding, much, or at least some, of what is extracted from these mines will contribute to our decarbonization. Conversely, failing to access these minerals somewhere will mean slowing the already too-slow transition away from fossil fuels. Remember: That emergency is upon us. So what's worse for the caribou, having to contend with a road crossing or enduring the myriad consequences of melting permafrost and rising temperatures?

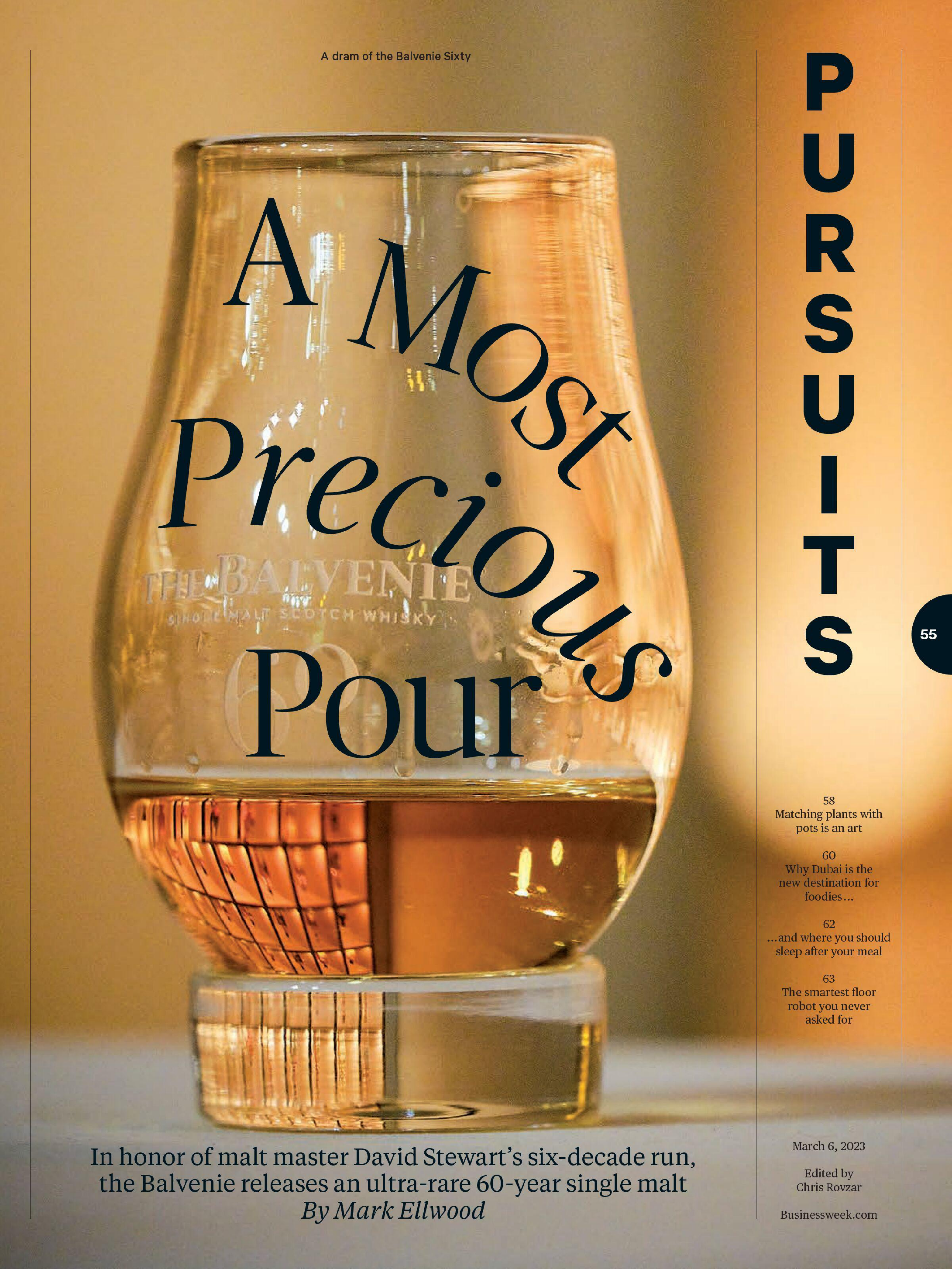
"It's a moment right now," says Boulanger, with the Initiative for Responsible Mining Assurance. "The IRA adds this tension, because on the one hand it means we need this stuff faster. So does that mean faster approval and less environmental protection and Indigenous consent?" Boulanger says it doesn't have to happen that way. Her advice: "Don't put such shoddy proposals forward, so you don't end up in litigation for a decade." In other words: We have a chance to make mining less awful. Let's capitalize on it.

During my visit to Coldfoot, I drove with Umstead and a friend about 15 miles south on the Dalton Highway to Chapman Lake, where we pulled off the road for a leisurely 7-mile walk past the lake to the shore of the middle fork of the Koyukuk River. The sky was clear and cold, the surrounding bog coated in browned clumps of grass that would be buried in snow within a week.

From the pebbled shore we skipped a few stones and ate crackers. If the Ambler Access Project is built, it will meet up with the highway not far from where we sat, which means a bridge would have to be built for trucks to pass over this pristine river. I imagined the construction crews busy at work on both riverbanks, turning this spectacular setting into something else, something more like everywhere else. It was heartbreaking.

But then I thought about my children, their uncomplicated and wholly justified concerns about climate change and their recent plea to replace the family's Honda CR-V with an EV. This is where we are now, our civilization, and it has a distinctly worst-of-both-worlds feel. The planet is already warming. If we have even a chance of mitigating that catastrophe, a whole lot more resource extraction has to happen. That doesn't mean every last mine should get a green light, or even that most mines should happen. It does mean that out there in the soon-to-be-despoiled splendor of nature, even a win for the climate is going to be an incalculable loss. Ⓑ


THE FUTURE
WITH HANNAH FRY
How science and tech are shaping a hopeful tomorrow.
NOW STREAMING
Bloomberg Television
Bloomberg ORIGINALS
LG Channels
Samsung TV Plus
The Roku Channel
fire tv
PRESENTED BY
ADP
Hitachi Vantara



A dram of the Balvenie Sixty

A Most Precious Pour

In honor of malt master David Stewart's six-decade run, the Balvenie releases an ultra-rare 60-year single malt

By Mark Ellwood

58
Matching plants with pots is an art

60
Why Dubai is the new destination for foodies...

62
...and where you should sleep after your meal

63
The smartest floor robot you never asked for

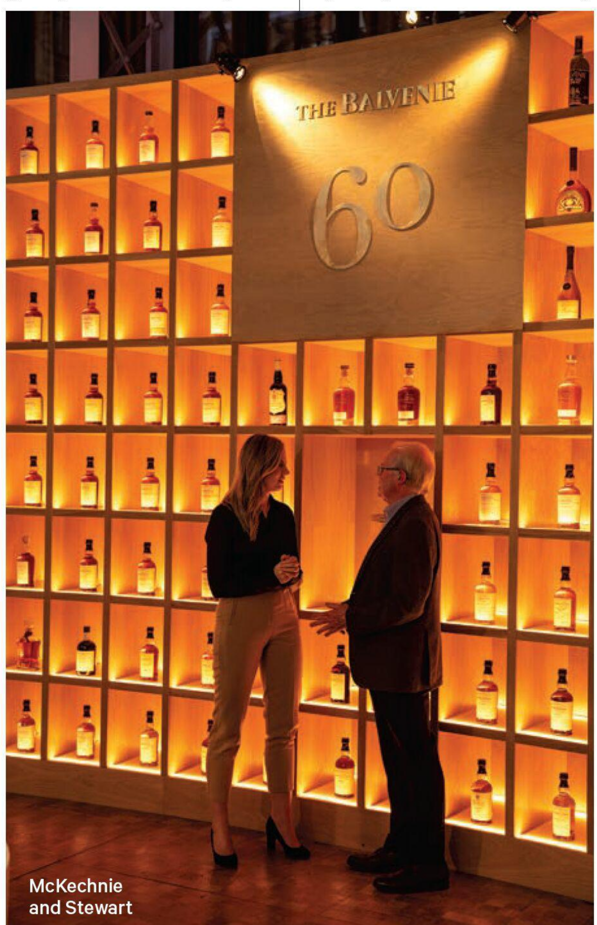
March 6, 2023

Edited by
Chris Rovzar

Businessweek.com

The landscape of Speyside in the Scottish Highlands is a patchwork of green; rolling but rugged, each morning it seems to shimmer slightly in the mist. It's here that the copper stills of the Balvenie distillery have been running for more than 130 years. And for almost half that time, David Stewart has been their steward.

The longest-tenured malt master in Scotch whisky history, the now 78-year-old Stewart is equal parts scientist, chef and ambassador for the brand. A malt master tends the casks, raising them to maturity before deciding which to blend into an exceptional single malt; once an expression is released, it's up to the malt master to evangelize and explain that new product. Now Stewart is preparing to pass the torch, and there's a $145,000 bottle to mark the occasion.



McKechnie and Stewart

The Balvenie Sixty, which commemorates Stewart's six decades at the company and introduces his successor, 30-year-old Kelsey McKechnie, is a co-created masterpiece. As a super-aged single cask bottling, there's no blend to devise, just a great sense of timing.

This particular liquid goes back to June 1962—or about the same time that the Beatles first met their famous producer, George Martin—when it was laid down in a European oak hogshead cask. In that period, such a barrel was typical and would have been widely used in whisky production; now the Balvenie tends to prefer European sherry oak butts. Earmarked for greatness several decades ago—the single malt whisky world equivalent of a child prodigy—the aging spirit was monitored by Stewart and McKechnie, who were keen to bottle it at the perfect moment for flavor and significance to the brand.

"It was marked as a beauty, and we held it back. But as soon as it turned 60 in June, we got it out quick," says McKechnie, who has apprenticed under Stewart for almost 10 years. It was worth the wait. The whisky is cashmere-soft: It starts with a waft of lavender and heather, both Scottish staples, but broadens on the palate into a honeyed citrusy taste with an extra long finish.

Only 71 bottles of the Balvenie Sixty will be sold worldwide. Eight will be available stateside; the first will arrive in April. The ultra-exclusive, limited-edition bottling marks another milestone, too, elevating McKechnie from apprentice to co-malt master, the first woman to hold the role at the Balvenie in its century-plus of operating.

Owned by William Grant & Sons Ltd., the Balvenie stills were first manned by the eponymous William Grant. The former cattle herder had bought them secondhand from a nearby distillery, after he'd scraped together enough money working as a bookkeeper at a whisky house. Grant was already operating one distillery, Glenfiddich, when he stretched himself to this second, which he built in 1892. The local ruined castle served as inspiration: Dating to the 13th century, it was called the Balvenie, which supposedly means "village of luck."

The golden liquid that's poured forth from such historic stills may indeed be lucky, with a global reputation for quality and collectibility that may seem intimidating to the whisky-curious. But the Balvenie malts are easy sipping tipples that are determinedly unsmoky—a classic example of the whiskies that define Speyside.

"They're for whisky lovers, rather than speculators, and it's partly to do with the style," says Isabel Graham-Yooll, auction and private client director at London-based Whisky Auction Ltd. "There's just a hint of this or that, which makes them more sophisticated."

After Stewart took over as malt master in 1974 (in his first years at the Balvenie, he had other roles), he and the distillery gained renown for devising the process of cask-finishing—essentially evicting liquid from its original home and moving it to a different barrel where it can continue to mature for a short time. A few months or even weeks in a new container, such as a cask that had previously been used to age port wine, can add extra layers of complexity and flavor. Stewart's innovative DoubleWood 12 product—combining time in American oak bourbon barrels and Spanish oak oloroso sherry casks—was the first such cask-finished whisky and an instant smash when it was released in 1993; the technique is now widespread throughout Scotland.

Prior to this development, single malts (that is, single distillery expressions that are lionized by connoisseurs today) were rarely sold. The Scotch whisky industry was still small-scale, and consumers usually opted for drinkable blends that were put together using liquids from various producers to offer a consistent, even inoffensive flavor profile. In fact, it was only in 1963 that the Balvenie's sister brand, Glenfiddich, even tested out a single malt,

PREVIOUS PAGE AND THIS SPREAD: COURTESY THE BALVENIE. BOTTLES: COURTESY COMPANIES

and it wasn't until the 1980s that this niche became the powerhouse it is now.

It's this single malt, cask-finished era in which McKechnie begins the transition at the Balvenie. (Despite her elevation, Stewart says he isn't retiring. "We've got things bubbling away, for maybe 2025 and beyond," he says.) She joined the brand in 2014, soon after graduating from the University of the West of Scotland with a bachelor's degree in biology and biological sciences, and she'd later study for a Master of Science in brewing and distilling at Edinburgh's Heriot-Watt University. But the ultimate education, McKechnie says, was the hours she spent in the vaults with Stewart. Fittingly, the first task she's undertaken in her new role is a tribute to him.

"A 60-year-old spirit is a flavor bomb in itself, so we want to make sure nothing's over-the-top," McKechnie says of the release. That focus on subtlety and drinkability is a nod to Stewart's self-effacing manner, for which he's widely known in the industry. He's shy but approachable and downplays fussing over his reputation, instead preferring to relish the creativity and slow, long-term planning of the job.

"What David has taught me is that even after six decades, you can still have a willingness to learn," McKechnie says. "We can go and nose different casks in the distillery, and



The Balvenie distillery in Dufftown, Scotland

he'll say, 'I've never really known something like that before. That's a bit unusual.' That mindset is so valuable." She pauses, then adds, "I've got lots of experiments in the warehouse."

If You're Investing, Expect the Exceptional

They say age is just a number, and that applies to spirits just as aptly as it does to people. An old whiskey isn't necessarily a mature one. In fact, there are plenty of expensive, ultra-aged expressions that become undrinkable after too many decades in the cask. They grow unbalanced and over-tannic at best, chaotic and cloying at worst. Here's a look at some recent releases that were worth the wait—and maybe even the asking price. —*Brad Japhe*



Michter's Celebration, $6,000
American whiskey is typically aged in virgin, charred-oak barrels. As such, it runs the risk of becoming over-oaked far faster than its Scottish and Japanese counterparts. Despite these odds, the talented team at Michter's brought balance to this blend of bourbon and rye, including some liquid older than 30 years. It's an assertive 112.8-proof sipper that leads with molasses and retreats soulfully with umami and clove. In February just 328 bottles were released globally. The last Celebration Sour Mash batch, from 2019, commands more than $30,000 a bottle on secondary markets.



Highland Park 54, $54,000
Russet in color and robust in red-fruit flavor, this new limited edition is actually the oldest ever from the Orkney Islands Scotch maker. It's a combination of 10 casks, initially distilled in 1968, and then re-racked 40 years later in sherry-seasoned barrels. A floral aroma pushes back against peat, exhibiting a sublime nuttiness.



Bowmore Arc 52, $75,000
There's an irresistible, instantly recognizable tropical fruit top note to any Bowmore liquid laid down in the 1960s—and this is no exception. Pineapple, mango and papaya all come out to play in a quaffable, 84.6-proof single malt. It's a work of art, presented in an aerodynamic, teardrop-shaped decanter designed by the folks at Aston Martin. Opening it requires a key fob befitting a luxury sports car.



Dalmore 45, $18,700
Few distillers on Earth are as adept at aging whisky as Sir Richard Paterson. The Scottish industry icon celebrated his 52nd year with the Dalmore by releasing a Scotch just slightly younger than his tenure. A lengthy finish in premium port pipes—wine casks as much as triple the size of regular barrels—imbued the richness of orange marmalade and sticky toffee pudding. It's an ideal dessert dram.



Hibiki 30, $5,000
Among Suntory's prestigious portfolio, this is the elder statesman of its core range. It's an assemblage of Japanese malt and grain whiskies, demonstrating dark-fruit sophistication. Stewed figs and cedar dominate the palate, while leather and tobacco latch on in the lengthy fade. Although it's been available in its native land since 1997, the 30-year expression first arrived in the US last October. Only a few thousand decanters, each bottled by hand, are produced annually.

Pick the Perfect Pot, Please

Life's too short to settle for plain terra-cotta planters

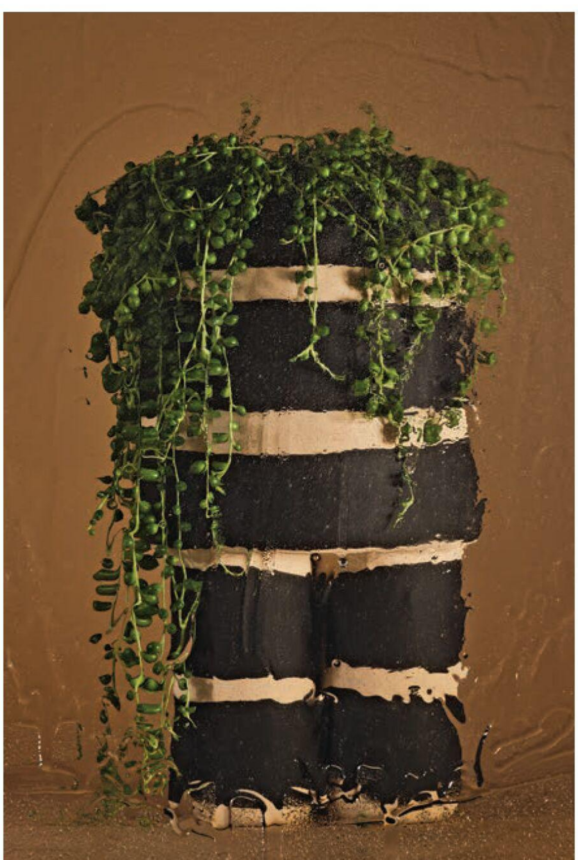
By Heather Arndt Anderson
Photographs by Suzanne Saroff

There's a houseplant for every amount of light and every level of skill required to keep it alive, and these days, there's a pot for every taste. Both your plant and your planter can be eye-catching and incredible—why not pair them to make a living work of art?

These seven combos show just how bold you can go: Don't be afraid of funky textures and bright colors. Contrast a sturdy pot with delicate foliage. Place a sinister-looking cactus in the simplest brutalist planter. And, for God's sake, put the hanging macramé away. (You should also make sure to read those instructions on watering.)



Ponytail Palm (*Beaucarnea recurvata*)
MoMA Self-Watering Wet Pot
If you're prone to overwatering or just travel a lot, a self-watering pot is a no-brainer. With its crisp cylindrical shape, this option (*$40-$85; store.moma.org*) surrounds glazed terra cotta in glass, making for a fun contrast with the bedhead look of the ponytail palm.



String of Pearls (*Curio rowleyanus*)
Workaday Milking Planter
The bubbly little succulent beads of the string of pearls make a whimsical partner for this black-striped planter of handmade stoneware (*$250; workadayhandmade.com*). But take care not to overwater when using a container without drainage. If you'd prefer more stripes-on-stripes, the humidity-loving kris plant (*Alocasia sanderiana*), with its dramatically lobed leaves and silvery-white veins, would pair nicely with the West African motif of this pot.



Croton (*Codiaeum variegatum*) Organic Swirl Vase
The bold splashes of a croton's color pop beautifully against the stark-white porcelain of this 3D-printed container from Seattle artist Brooks Talley (*$100; 23lumens.com*). Crotons like to be kept warm and evenly damp, and glazed ceramic like this will help retain moisture. The organic curves would also look striking with the swirly spiral leaves of a *Trachyandra*.



Zebra Plant (*Aphelandra squarrosa*) **Resin Summit Planter**
The forest-green-and-white-striped foliage of the zebra plant works well against the warm ocher tones of this planter by Capra Designs (*$89-$179; tendgreenpoint.com*), but when it blooms, the zebra's yellow blossoms will positively dazzle. The bias cut on the pot would also look good with a trailing plant (such as burro's tail) dangling down the side.



Moth Orchid (genus *Phalaenopsis*) **Honeycomb Planter**
Epiphytic plants like this moth orchid are stunningly easy to care for; they grow naturally on tree bark with their roots dangling out to catch dust and rain. This ceramic vessel by Brooklyn, New York, artist Paul Distelzweig (*$240-$435; apishabilis.com*) provides a rugged setting for these delicate-looking flowers. Just water it in the sink or set it on a tray to catch the drips coming through the holes.



Spiral Cactus (*Cereus forbesii*) **Conifer Spruce Planter**
Honestly, a succulent this cool would look good in a burlap sack, but here the green-on-green monochrome pot allows its incredible twisty shape to take the spotlight. The etched swirls of the 3D-printed bioplastic vessel (*$18-$70; tendgreenpoint.com*) echo the helical form of the spiral cactus, and the built-in drain tray helps prevent overwatering.



Crested Blue Flame Cactus (*Myrtillocactus geometrizans*) **Morse Quilted Wall Planter**
If you opt for a wooden planter like this beauty from Morse (*$48-$110; morsestudioco.com*), it's helpful to pair it with a specimen that doesn't need tons of water—especially if you're mounting it on the wall. This cockscomb-like cactus is also called the dinosaur back plant.


Mott 32

GO HERE NOW

Dubai's Homegrown Delights

The jet-set playground is finally creating an authentic culinary scene all its own. *By Lisa Fleisher*

Dubai's bling has long been borrowed from other places. Drive around and you'll see a landscape dotted with familiar sights: a tower that looks like Big Ben, two side-by-side knockoffs of the Chrysler Building, a London Eye-style Ferris wheel. And the city's most popular restaurants have been upscale global chains such as Hakkasan, La Petite Maison and Nobu.

Now, Dubai is offering something different. After two decades of exponential growth, the once-sleepy trading port in the desert is cementing a new, unique cultural scene through dining and world-class hotels.

The most interesting expression of that is its homegrown restaurants, with budding stars who seem to open new places every week. One of the most prolific is chef Izu Ani, who opened his first Dubai restaurant in 2013. He now has eight in the city and counting, and he's been celebrated by

COURTESY COMPANIES

WHAT TO DO

Traditional tourist activities—a city stroll or an historic monument visit—don't apply in Dubai. But there's plenty to do besides hanging out at a resort or shopping at the mall. Here are some of my favorite recommendations for visitors:

Sheikh Mohammed Bin Rashid Al Maktoum Centre for Cultural Understanding
Plan in advance to have a meal and listen to Emiratis explain their history and culture through organized talks and tours—budget half a day for the full experience. The staff is happy to answer all questions, no matter how ignorant or awkward. Although the center may not have a Michelin star at its dining room, this could be your only chance to interact with Emirati citizens on your trip—they make up just 8% of the city's population.

OliOli
A magical indoor play area good for children up to age 6 or 7, OliOli includes rooms filled with giant climbing nets, water features, hands-on exhibits, light shows and more. It's worth the trip into the city's industrial core.

Kite Beach
This free beach is one of Dubai's best places to go for a walk, run or bike ride, or to just relax. There are plenty of places to eat—like Salt, a food truck that serves burgers—as well as activities including volleyball, padel and, as the name suggests, kitesurfing.

Alserkal Avenue
Take a walk around the galleries in Dubai's warehouse district, grab a meal at Nightjar Coffee Roasters, then head across 6a Street to the Mediterranean-style Courtyard to shop in its boutiques.

WHERE TO EAT

Jun's
Kelvin Cheung opened Jun's in 2022 after spending years in India as one of Bollywood's favorite chefs. The menu has influences from his time in Chicago, India and Hong Kong. Don't miss the rainbow heirloom carrots in smoked labneh.



Lila Taqueria
American chef Lash makes wood-fired tacos using fresh masa tortillas from nixtamalized corn ground daily. Lash, who once worked under Michelin-starred

the emirate's top royals, whose visits Ani has documented on his Instagram feed.

"Here it's the Middle Eastern dream," Ani says, "where if you have the appetite and you have the sustainability to stay the course, you can build something."

A torrent of money flooding in the past two years doesn't hurt, either. In 2022 more millionaires moved to the United Arab Emirates than anywhere else in the world. It's one of the few countries holding its borders open for Russians—and their cash—continuing to fuel a property boom. Others might be escaping crises at home, including people from Lebanon or Ukraine. Then there are the bankers relocating to Dubai from Hong Kong or Singapore after a few difficult years of Covid-19 isolation, as well as Europeans avoiding high taxes and energy prices.

All that cash sloshing around means investors are competing to finance local chefs—both well-known quantities and up-and-comers. They're seeing a return: Michelin, sponsored by Dubai's tourism department, awarded stars last summer to 11 restaurants and gave 14 others a Bib Gourmand designation—not quite star level, but it allows them to hang the Michelin shingle on the door. With 15 places on the list, Dubai dominates the Middle East & North Africa's 50 Best Restaurants selections, now in its second year in the region.

Shaw Lash, an American chef specializing in Mexican cuisine, struggled to find momentum to open a restaurant in Amsterdam but quickly attracted investors in Dubai. "The attitude about investing in restaurants here is you can make money, it's not perceived as a losing scenario," says the chef, who opened Lila Taqueria in December. "There's a whole lot more people that have a little bit of extra money that they're just interested in playing with."

To be sure, Dubai is still a major market for big international brands seeking investment, especially as costs of labor, rent and electricity make it more difficult to profit in other cities. Malcolm Wood, who just opened a branch of his Chinese restaurant Mott 32 at the five-star Address Beach Resort, says Dubai is a place where fine dining can still see big margins. "When you've got an international brand, you want to be in Dubai, in Vegas and London secondary. And then New York," he says. "Dubai is definitely positioned at the top of that culinary market."

One reason chefs are pouring into the city is that developers are building hotels at a lightning pace. The number of available rooms in Dubai reached 143,634 in 2022, up 45.7% from 2016, according to STR, a global hospitality data and analytics company. That's a growth rate second only to Qatar, which hosted the World Cup last year.

Traveling to Dubai soon? Below, all you need to know about where to eat and rest (or party all night).



The Polaris tent at Terra Solis

Rick Bayless, now feeds government ministers and members of prominent families who quickly fill up the 35-seat restaurant.

Orfali Bros
The celebrated restaurant from three Syrian brothers topped the region's 50 Best list this year. Memorable dishes include the corn bomb, which features the thinnest Parmigiano shavings you'll ever eat; the Eat H, a tomato and bulgur wheat-based dish; and the caviar bun, essentially a profiterole topped with kaluga fish eggs.

Gaia
This Greek restaurant from chef Ani, located in the business district, is a perennial favorite for residents. A place to see and be seen.



Umami eclair with beef prosciutto from Orfali Bros

WHERE TO STAY

There's no shortage of clean, spacious hotels in Dubai—and you can get a deal if you don't mind being farther from the beach and slightly north or east of the city. There's also an abundance of places to spend $1,000-plus per night on a room, so take your pick.

The Luxury Option
Before Atlantis the Royal opened this year (see following page for our review), the Bulgari Resort was the city's standard-bearer for glitzy luxury. Model Bella Hadid and actress Alicia Vikander were among the celebrities at the hotel's 2017 opening. The 121-room property is built on a human-made, seahorse-shaped island. It's home to two of Dubai's 11 Michelin-starred restaurants: Il Ristorante – Niko Romito, which received two stars, and Hoseki, a Japanese restaurant with one star. *From 6,500 dirhams ($1,770)*

A Desert Festival Retreat
Terra Solis, a new getaway by festival organizer Tomorrowland, is a way to experience the desert without giving up resort amenities. Located a 30-minute drive outside Dubai, it's not a wellness retreat: The property's central feature is a pool surrounded by DJ booths and stages where it hosts several large concerts a year. *From 950 dirhams*

A Wallet-Friendly Choice
You wouldn't know if you walked into Al Bandar Rotana, in the northern part of the city, that this hotel is a budget option. Rooms are spacious and new, with modern design and plentiful amenities. The massive bathrooms include a separate, spa-like tub. There's also a rooftop pool with downtown skyline views, and the hotel offers three restaurant options. *From 477 dirhams*



The living room in a Sky Terrace suite

The Deep End Of Decadence

A suite can cost as much as $100,000 a night at Dubai's Atlantis the Royal, but don't you dare just stay in your room. *By Lisa Fleisher*

From the moment you step through the front entrance, Atlantis the Royal puts on a show. Water pours down inside glass walls, while fire periodically flashes up. The pressure to post to Instagram is immediate, because you've arrived at the self-titled "most ultraluxury" resort in the world.

This isn't the world, though. It's Dubai, where "ultraluxury" has a specific meaning and nouveau riche aesthetics are giddily embraced. Wealth like this was made to flaunt, not accrue silently in savings accounts. Ultraluxury is over-the-top, clad with gold and marble.

That's what the $1.2 billion Atlantis the Royal, the latest property from Dubai-based hotelier Kerzner International Ltd., delivered with a "Grand Reveal" show in January starring Beyoncé. And it's what guests have experienced since its 795 rooms opened in mid-February.

The journey of opulence begins in the hotel lobby, where the unifying theme of water (Atlantis, remember?) is hammered home with a towering aquatic sculpture and pool cutouts in the floor into which guests occasionally tumble. Check-in occurs at unmarked golden counters, which require constant buffing with microfiber towels to remove dreadful indicators of human presence such as fingerprints.

Company officials initially garnered headlines by saying the top-level suite, the Royal Mansion, would cost $100,000 a night. Now a spokeswoman is demure about the price, saying it's available upon request. And in February, Louis Vuitton booked the room for a private shopping event, so I couldn't visit. Instead, I was shown the Panoramic Penthouse, which took my breath away—starting at 135,260 dirhams ($36,825), plus 22% in taxes, it had better. On one side of the hotel, guests have an unobstructed view of the blue-green Persian Gulf. The other side looks out over the fronds of the man-made Palm Jumeirah archipelago and the mansions of billionaires and royalty.

I stayed in a Seascape King, one of the basic rooms, but I use the term lightly. The studio starts at about 4,135 dirhams a night in high season. It's large enough for a king-size bed, lounger and desk, and spacious closets. The furniture is comfortable, and amenities in the grand bathrooms include golden toothbrushes, combs, a back scrubber, flip-flops and a beach bag, all of which can be taken home without charge.

For a resort promising that "something incredible happens at every moment of your stay," the basic rooms lack a wow factor. I was excited to see a high-tech Toto brand bidet toilet with a heated seat, though that made me wish the bathroom floors were heated, too. (Clearly, I'm getting spoiled.)

But this isn't a hotel where guests hide away in their rooms. Instead, they put on their trendiest beachwear, take selfies in front of the Bellagio-style fountains, go shopping in the Valentino boutique or book a cabana at one of several outdoor lounges. At Nobu by the Beach, for an extra 10,000 dirhams, you and nine friends have access to a living room, a private changing area and shower, and a small private pool. The rate includes two bottles of Champagne and some nibbles.

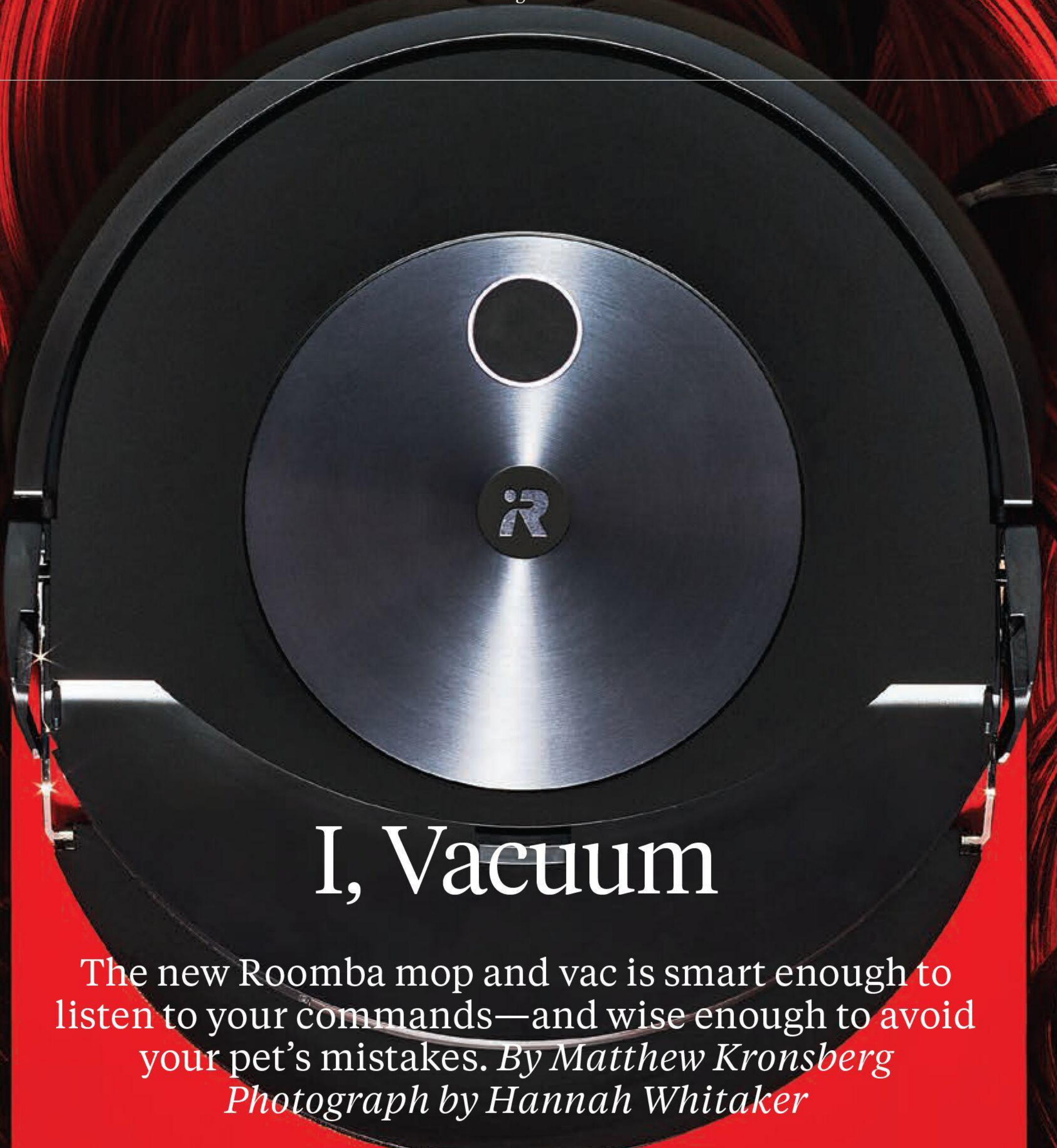
First, however, you might want to get a Botox top-up, ozone dialysis or stem cell therapy at the on-site Aeon Clinic for "regenerative wellness." Or head up to the true showstopper: the Cloud 22 lounge, an open-air space on the 22nd floor with thumping club music and a strong wind. An infinity pool with a double ledge is all that separates you from the resort below. Here, too, you can book cabanas for an extra fee and get your own plunge pool, which the resort doesn't count as one of 90 total pools on the property, including 44 in private suites.

The stunning Awaken spa has gender-segregated relaxation rooms, but six hammams, or Turkish baths, have yet to open. The meditation with dolphins program is also pending.

Each of the seven celebrity chef-helmed restaurants has a unique vibe and design, but the level of service is celestial across the board. When we ate lunch at Jaleo by José Andrés (get the rossejat, a paella-style pasta), four different people asked if we wanted a highchair for our 3-year-old. At the breakfast buffet, my daughter out of nowhere got a hankering for tofu, and the kitchen happily provided a plateful. Meanwhile, I hadn't finished my latte before my cup was taken away and replaced with a new one—twice.

This is where Atlantis the Royal earns its name and its ultraluxury reputation. Every few feet as you walk the grounds, a security guard, concierge, lifeguard or cleaner places their right hand on their heart, bows forward and says hello. All properties run by Kerzner have adopted this apparent Covid-era gesture, but it certainly made me feel like a queen.

COURTESY ATLANTIS



I, Vacuum

The new Roomba mop and vac is smart enough to listen to your commands—and wise enough to avoid your pet's mistakes. *By Matthew Kronsberg*
Photograph by Hannah Whitaker

Put a poorly house-trained dog under the same roof as a diligent but dumb robot vacuum, and you're all but guaranteed a smeary pooptastrophe. IRobot Corp., which Amazon.com Inc. agreed to buy for $1.65 billion in August, amped up the brains of its $1,100 Roomba Combo j7+ by training its AI-based navigation system on more than 100 carefully sculpted models of pet mess, so it knows just what to avoid (if it doesn't, a new bot is gratis). For the animal-free, the system also recognizes and steers around dozens of suction-snarling objects such as cables and socks while it mops and vacuums—and empties its own dustbin by returning to its dock.

THE COMPETITION

• When it's released in April, Roborock's $1,600 S8 Pro Ultra combination vacuum and mop will include a charging dock that can both refresh the mop's water supply and clean and dry the mop head automatically.
• The $1,550 Deebot X1 Omni from Ecovacs—available in black or, boldly, white—fuses a combination of lidar laser mapping and camera-based obstacle avoidance to navigate, while twin spinning mop heads deeply clean hard surfaces.
• Anker's $900 Eufy Clean X9 Pro, out later this spring, is a relative bargain for a does-it-all floor bot, especially with above-average suction (5,500 pascals) and a pair of spinning mop heads that automatically lift half an inch when faced with a carpet.

THE CASE

While avoiding No. 2 might be the No. 1 reason many choose the Roomba Combo j7+, there are more: Mapping and integration with Google Assistant and Amazon Alexa allow you to give verbal commands, such as "clean around the dining room table." It also distinguishes between hard and soft surfaces, stowing the mop head before driving on rugs, something no competitor can do. Although the mop doesn't spin or vibrate, and the 210-milliliter water tank isn't the biggest, the j7+ can clean as much as 1,000 square feet on eco mode, and an extra-strong internal pump lets it use floor cleaner, boosting effectiveness. Failing that on dirtier, high-traffic areas, it will automatically take a second pass. *$1,100, irobot.com*

Stocks Suffer, But Workers Finally Get a Break

By Lisa Abramowicz

It's common to hear analysts say that the stock market is not the economy. For decades that meant equities were soaring on the heels of low-interest-rate policies, while many lower-wage workers were being left behind. A growing share of corporate profits went to investors and higher-level executives, and rank-and-file employees got a smaller piece of the pie.



ILLUSTRATION BY GEORGE WYLESOL

Now, as the Federal Reserve raises interest rates to the highest levels in 40 years, that equation is changing. Companies face labor shortages unseen in the modern economy and are being forced to keep raising wages, particularly for employees who serve in lower-paid, front-line jobs. The latest earnings reports from Home Depot Inc. and Walmart Inc. contain perfect examples of this: Home Depot said it would spend $1 billion to boost compensation for hourly workers, and Walmart has raised its minimum wage and increased benefits.

Last year production and nonsupervisory laborers saw their wages grow faster than the rest of the American workforce's by the most since at least 2007, according to the Economic Policy Institute. The Atlanta Fed Wage Tracker shows a similar trend, with the lowest earners outpacing the highest ones by the most in decades.

Bigger paychecks have helped fuel consumer spending, which keeps coming in higher than many have expected, leading to robust revenue growth at many companies—but not necessarily similar gains in profit. More corporate money has gone toward attracting and keeping workers at a time when older workers are retiring, immigration rates are being restricted and the unemployment rate is 3.4%, the lowest since 1969.

Fourth-quarter earnings were 0.1% below Wall Street forecasts at the start of the season, the worst performance since the first quarter of 2020 and significantly below the prepandemic years, when profits exceeded forecasts by an average of 3.7% going back to 2017, according to a Feb. 21 report from Bank of America Corp. credit strategists. That contrasted with a revenue surprise of 1.4% over forecasts in the quarter, above the 0.7% pre-Covid-19 average.

The takeaway here isn't that all workers now have the upper hand and can show up three days a week and get full benefits and massive pay raises. Things haven't changed that much. But workers have clawed back a bit more of the US gross domestic product in the past few years, with labor's share of GDP rising to 44% as of June, up from 42% in 2013.

Some economists expect a permanent shift in the cost of labor because of structural changes in the workforce. It's too soon to say. But current trends further illustrate how the economy and stock market aren't the same. Today, workers can keep spending even as stocks struggle in the face of waning corporate profits. And even if the economy rides this wave of spending to a soft landing or no landing, this may remain a tough environment for stocks. Ⓑ

Bloomberg Businessweek (USPS 080 900) March 6, 2023 (ISSN 0007-7135) H Issue no. 4775 Published weekly, except one week in February, April, May, June, July, August, September, October and November by Bloomberg L.P. Periodicals postage paid at New York, N.Y., and at additional mailing offices. Executive, Editorial, Circulation, and Advertising Offices: Bloomberg Businessweek, 731 Lexington Avenue, New York, NY 10022. POSTMASTER: Send address changes to Bloomberg Businessweek, P.O. Box 37528, Boone, IA 50037-0528. Canada Post Publication Mail Agreement Number 41989020. Return undeliverable Canadian addresses to DHL Global Mail, 355 Admiral Blvd., Unit 4, Mississauga, ON L5T 2N1. Email: contactus@bloombergsupport.com. QST#1008327064. Registered for GST as Bloomberg L.P. GST #12829 9898 RT0001. Copyright 2023 Bloomberg L.P. All rights reserved. Title registered in the U.S. Patent Office. Single Copy Sales: Call 800-635-1200 or email: bwkcustserv@cdsfulfillment.com. Educational Permissions: Copyright Clearance Center at info@copyright.com. Printed in the U.S.A. CPPAP NUMBER 0414N68830

EnviroTech Ink

FSC MIX Paper FSC® C084269


THERE'S AN INNOVATOR IN ALL OF US.
That's why Dell Technologies and Intel create technology with innovation built-in, so every person and every business can do more incredible things.
Contact a Dell Technologies Advisor at 877-ASK-DELL or Dell.com/sb
DELL Technologies
intel



Powering what matters

100 years on the NYSE

Celebrating a century of delivering for our shareholders

2023 marks an extraordinary milestone for Eaton: 100 years of being listed on the New York Stock Exchange (NYSE). Our longevity on the exchange reflects our resiliency and ability to adapt to the changing world around us. We began in an era of dramatic change in transportation, and today we've transformed into a global intelligent power management enterprise. As we've evolved, we've stayed focused on our responsibility to our key stakeholders – our employees, customers, shareholders, communities – and all of society. We're now at the forefront of some of the most important growth trends that we will see in our lifetime – and that will shape society in the future. We're delivering solutions to address the world's most urgent power management challenges and improve the environment and quality of life for people everywhere.

At Eaton, we make what matters work, and we power what matters next.

There's never been a better time to be an investor in Eaton.

EATON
Powering Business Worldwide

100 YEARS ETN LISTED NYSE

Eaton.com/nyse